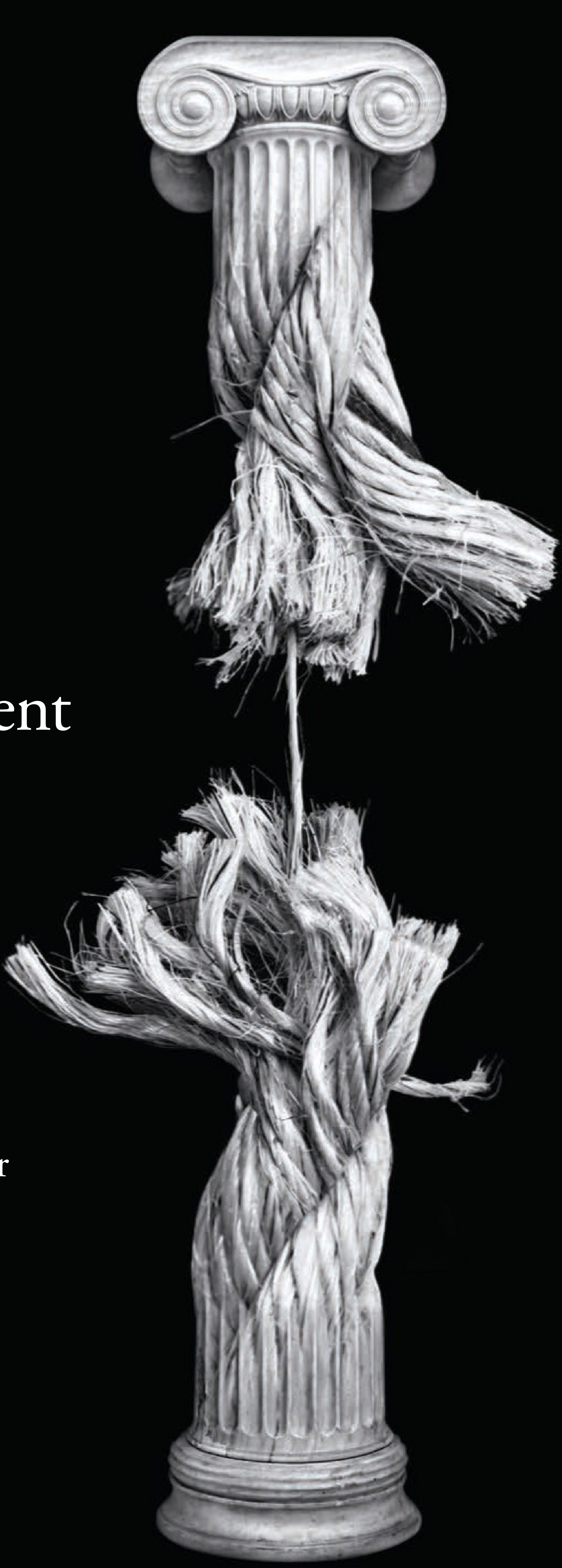
VISIT…

LANZAROTE
Caliente.COM

APRIL 2020
THEATLANTIC.COM



A

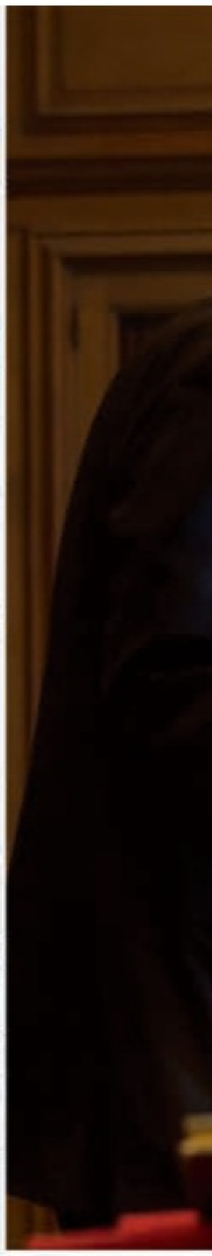
The Atlantic
EST. 1857

How to Destroy a Government

The president is winning his war on American institutions

By George Packer

CRYSTAL PITE AND KHOUDIA TOURÉ
DANCE



SIR DAVID ADJAYE AND MARIAM KAMARA
ARCHITECTURE

COLM TÓIBÍN AND COLIN BARRETT
LITERATURE

ZAKIR HUSSAIN AND MARCUS GILMORE
MUSIC

ROLEX MENTOR AND PROTÉGÉ ARTS INITIATIVE

Rolex is dedicated to the transmission of knowledge across generations. Through the Rolex Mentor and Protégé Arts Initiative, we are honored to perpetuate a tradition of mentorship within artistic disciplines. This one-on-one program pairs preeminent artists with future masters and promotes the sharing and exchanging of ideas. Rolex proudly celebrates the culmination of the latest mentor and protégé two-year collaborations. Together, we can help ensure that the world's artistic heritage is passed on to the next generation.

Discover more on rolex.org

#Perpetual

ROLEX

ROLEX AND ♛ ARE ® TRADEMARKS. NEW YORK

AbbVie
Here.
Now.

Helping millions find a new day. Right here. Right now.

At AbbVie, our goal is to help people live their best lives today and tomorrow. That's why we'll never give up on discovering the medical breakthroughs of tomorrow, while continuing to support patients in the here and now.

Read how we help patients like Barry:
herenow.abbvie

Barry,
Parkinson's disease patient

abbvie

VOL. 325—NO. 3 APRIL 2020

Features

28

Something in the Water

Opposition to water fluoridation, while vocal, has been largely a fringe crusade. But solid evidence for fluoridation's value is surprisingly hard to find.

By Charles C. Mann

36

How to Tackle a Giraffe

The planet's tallest animal is in far greater danger than people might think. Saving it begins with a daunting act of physical courage.

By Ed Yong

44

What Happened to Jake Millison?

When a young rancher went missing, his family said he'd skipped town. But his friends knew him better than that, and refused to let him simply disappear.

By Rachel Monroe

Cover Story

Every member of FBI leadership who investigated Trump for conspiracy and obstruction of justice has since been forced out of government service and subjected to a campaign of vilification. Andrew McCabe, former acting director of the FBI, and his wife, Jill, are still suffering the consequences.

54

HOW TO DESTROY A GOVERNMENT

By George Packer

The president is winning his war on American institutions.

PHOTOGRAPH BY PEYTON FULFORD

Front

6
The Commons
Discussion & Debate

Dispatches

9
OPENING ARGUMENT
Capitalism’s Addiction Problem
The biggest companies in the digital economy are getting their users hooked—and undermining the pillars of America’s market economy.
By Maya MacGuineas

14
SKETCH
Tight With a Dollar
Mitch Daniels has kept Purdue’s tuition under $10,000 for seven straight years. How?
By Andrew Ferguson

17
MATERIAL WORLD
It’s All So … Premiocre
A guide to the new age of Potemkin luxury
By Amanda Mull

20
HUMAN NATURE
The Perks of Being a Weirdo
How not fitting in can lead to creative thinking
By Olga Khazan

24
VIEWFINDER
Fine Motor Skills
Photographs by Christopher Payne

Culture & Critics

76
OMNIVORE
The Reigning Master of Family Drama
Hirokazu Kore-eda’s latest film, his first set outside of Japan, showcases the great director’s signature theme.
By Terrence Rafferty

78
A Sight
A poem by Billy Collins

80
BOOKS
Hilary Mantel Takes Thomas Cromwell Down
As the author’s remarkable trilogy ends, her epic hero’s self-mastery is newly in doubt.
By Judith Shulevitz

84
BOOKS
The World’s Favorite Drug
The dark history of how coffee took over
By Michael Pollan

Back

88
ESSAY
Reiki Can’t Possibly Work. So Why Does It?
What the ascendance of the 20th-century Japanese healing therapy says about shifts in thinking about health care
By Jordan Kisner

100
Ode to Fallibility
By James Parker

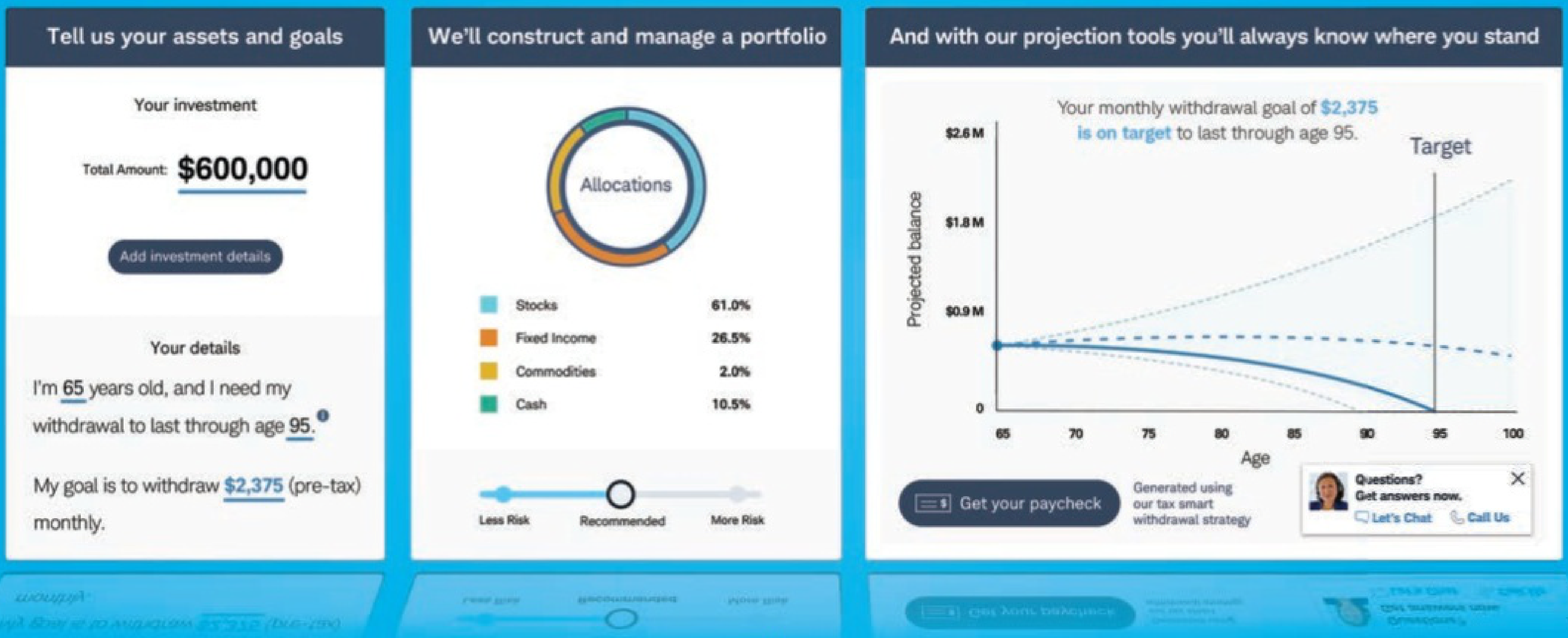
On the Cover

PHOTO
RENDERING
BY
PATRICK
WHITE

Introducing the modern way to pay yourself in retirement.

Schwab Intelligent Income™

A simple, modern way to generate a paycheck from your portfolio.



Tell us your assets and goals

Your investment

Total Amount: $600,000

Add investment details

Your details

I'm 65 years old, and I need my withdrawal to last through age 95.

My goal is to withdraw $2,375 (pre-tax) monthly.

We'll construct and manage a portfolio

Allocations	
🟦 Stocks	61.0%
🟧 Fixed Income	26.5%
🟨 Commodities	2.0%
🟩 Cash	10.5%

Less Risk ○ Recommended ○ More Risk

And with our projection tools you'll always know where you stand

Your monthly withdrawal goal of $2,375 is on target to last through age 95.

Generated using our tax smart withdrawal strategy

Plus, flexibility to **start, stop or adjust your paycheck** at any time with **no penalties**

Available with Schwab Intelligent Portfolios,® so you pay **no advisory fee or commissions**

Find out how it works at **Schwab.com/IntelligentIncome**

Wealth Management at Charles Schwab

PLANNING | PORTFOLIO MANAGEMENT | INCOME STRATEGIES | BANKING

charles SCHWAB

Own your tomorrow.

Graphics are for illustrative purposes only and not intended to represent a specific investment product.

We encourage you to read the Schwab Intelligent Portfolios Solutions™ disclosure brochure for important information, pricing, and disclosures. Before you enroll, it's important you understand any and all costs, including the role of cash and the way Schwab earns income from the cash allocation in your portfolio, which will affect performance, and how Schwab and its affiliates work together.

Schwab does not guarantee the amount or duration of Schwab Intelligent Income withdrawals nor does it guarantee any specific tax results such as meeting Required Minimum Distributions.

You may incur IRS penalties for early withdrawal of funds depending on what type of account you have.

Schwab Intelligent Income is an optional feature available with Schwab Intelligent Portfolios, which has no advisory fee and doesn't charge commissions, and Schwab Intelligent Portfolios Premium™, which offers financial planning for an initial fee of $300 and a $30 per month advisory fee charged quarterly after that.

Schwab Intelligent Portfolios and Schwab Intelligent Portfolios Premium are made available through Charles Schwab & Co., Inc. ("Schwab"), a dually registered investment advisor and broker dealer. Portfolio management services are provided by Charles Schwab Investment Advisory, Inc. ("CSIA"). Charles Schwab Investment Management, Inc. ("CSIM"), the investment advisor for Schwab Funds, receives management fees on Schwab ETFs. Schwab, CSIA, and CSIM are affiliates and subsidiaries of The Charles Schwab Corporation.

©2020 Charles Schwab & Co., Inc. All rights reserved. Member SIPC. (0220-0BCN) ADP110210-01

Behind the Cover: Art directors at *The Atlantic* are asked, with some regularity these days, to perform symbolic violence upon an emblem of the United States. This is not because of any dislike on the magazine's part for the country or its institutions. Rather, the destruction of national symbols has proved a useful metaphor for these parlous times. As we learn in George Packer's startling cover story about President Donald Trump's attack on the civil service, the future of American institutions hangs by a thread. So it seemed apt to depict a classical column—the kind seen on countless government buildings—as a taut rope reaching its breaking point. — Paul Spella, *Art Director*

THE

Why Won't He Just Say It?

In the January/February issue, John Hendrickson wrote about Joe Biden's stutter—and his own.

Letters

A

As a fellow stutterer, I was moved by reading your personal story alongside Joe Biden's, and seeing how you have each approached your stutters differently. You handled the subject matter with complexity and sensitivity, and it brought tears to my eyes.

Maura Lammers
Spokane, Wash.

I stutter, and my 4-year-old son stutters, too. I recently told my husband that I couldn't stand Mr. Biden's narrative that *I stuttered, I worked so hard, and now I don't.* As Hendrickson writes, it's a message to kids and adults who stutter that they must distance themselves from a piece of their identity to succeed.

Alexis W.
Arlington, Mass.

I know I have been uncomfortable when others stutter, or have anxiously laughed or tried to "help." I want to apologize to those I have demeaned with my lack of understanding.

I now see Biden in an entirely new light and will be cheering him on from the sidelines. As a candidate, he's not as progressive as I'd like—but I'll listen more closely for content and less for form when I hear him now.

Anne Alftine
Medford, Ore.

JOHN HENDRICKSON REPLIES:

I had no idea what to expect when we published this article. To date, I've received more than 500 emails about it, and new messages arrive daily. These letter writers—of all ages, races, and genders—have opened up about their various trials and tribulations, and how they've tried to make peace with the shame that often accompanies the neurological disorder of stuttering. I don't know what the answer is, other than to keep talking about it. During a CNN town hall in February, Biden received an audience question about stuttering and spoke about his journey in ways he had previously avoided on national TV. The response was profound. I'm not sure what the future holds for the former vice president, but I'm glad his stutter is no longer the elephant in the room.

The Miseducation of the American Boy

Peggy Orenstein wrote about why boys crack up at rape jokes, think having a girlfriend is "gay," and still can't cry—and why we need to give them new and better models of masculinity (January/February).

To the extent that "toxic masculinity" is real, most men—clearly not all men—age out of it as they mature. Also, the kind of masculinity Peggy Orenstein describes is much less evident in other groups of teenage boys. Ms. Orenstein's sample skewed almost entirely to young, white athletes. But had she spoken with members of the debate team, for instance, or the drama club, or

COMMONS

DISCUSSION
&
DEBATE

the school band, she might have opened a window to a very different landscape.

Harold G. Knutson
Chicago, Ill.

While Orenstein brings up some good points, the fact that her sense of humor, life experiences, and perspective differ so much from those of a teenage boy means that she is often seeing male culture from a female cultural perspective. As a teacher of teenage boys, I don't think that teenagers making offensive jokes, testing boundaries, or joking around with one another is necessarily as ominous as she says.

Mary Vansuch
St. Louis, Mo.

I am an English teacher at an all-boys private school outside Baltimore. Peggy Orenstein's incisive, observational piece struck me so much that I assigned it to my 60 senior students. The discussion that followed was one of the most rewarding and interesting of my teaching career.

Many of my students held a belief that when adults talked about boys' lack of vulnerability, they were actually suggesting a lack of emotional complexity. Of course, we adults understand that external vulnerability and internal complexity are different, but it seems urgent that this nuance be properly expressed to boys so as to enable more productive conversation.

Students largely agreed with the observation that they do not speak out against peers engaging in demeaning speech. "No one changes when someone just tells them they're wrong," one student said. Perhaps adults need to show that minds can be changed, and that such changes are something to celebrate.

Finally, young men are in desperate need of role models. "I know there are bad forms of masculinity," one of my brightest students said, "but I'm kind of at a loss for what a good version looks like."

I do not want to make the frankly ridiculous conservative claim that "young men are the victims," but I did walk away from these conversations feeling deeply sorry for these boys. We're leaving them dangerously immature and unprepared for adult life. Boys understand themselves—good, bad, and ugly—a little more than we give them credit for, and that knowledge concerns them. It should not only concern us—the adults around them—it should impel an immediate change in our actions and attitudes.

Daniel Maloney
Baltimore, Md.

PEGGY ORENSTEIN REPLIES:

Let's say, for the sake of argument, that Harold G. Knutson is correct that many guys will "age out of" the behaviors I describe (although given the scope of sexual misconduct exposed by the #MeToo movement, and the higher rates of substance abuse, loneliness, and suicide among adult men as compared with adult women, it's clear that far too many will not). I would still ask: At what cost, and to whom? The harm that those boys who grow out of it inflict along their learning curve can traumatize girls (and other boys) for decades, sometimes for life. So I reject that "boys will be boys" perspective. As to my sample, in the first paragraphs of the article I wrote that the reporting for the book from which it was adapted encompassed young men of different ethnicities, sexual orientations, gender identities, and interests. Most were not athletes.

As Daniel Maloney indicates, young men are generally not victims. They are, however, individuals being raised in a gendered system that can undermine well-being and skew relationships. All-male environments can reinforce stereotypes and disconnection, or they can be crucibles of change; that choice rests with community leaders.

To respond to *Atlantic* articles or submit author questions to The Commons, please email letters@theatlantic.com. Include your full name, city, and state.

Q • & • A

The December 1976 issue of The Atlantic *included the first published short story by a young writer named Tobias Wolff. It was called "Smokers," and took place at a boarding school where "the one category in the yearbook to which everyone aspired was 'Most Sarcastic.'" Recently, a reader wrote to us with a question about the story.*

Q: I loved the story "Smokers." But it seems there is an error in the sentence "You get sarced out all the time"; I couldn't find a definition of *sarced* anywhere. Could you please help me understand what the author wanted to say? It might just be that I don't know the word, as I am not a native English speaker.
— *Lilia Festa-Zaripova, Prague, Czech Republic*

A: *Sarced out*—pronounced "sarked"—was an expression used in my school for our competitive habit of putting one another down with sarcasm, especially if one of us said something innocent or unguardedly emotional or openhearted. I wish I hadn't included it in the story, as it's caused more confusion than just about any other line I've ever written. — *Tobias Wolff*

EDITORIAL OFFICES & CORRESPONDENCE *The Atlantic* considers unsolicited manuscripts, fiction or nonfiction, and mail for the Letters column. Manuscripts will not be returned. For instructions on sending manuscripts via email, see theatlantic.com/faq. By submitting a letter, you agree to let us use it, as well as your full name, city, and state, in our magazine and/or on our website. We may edit for clarity. CUSTOMER SERVICE & REPRINTS Please direct all subscription queries and orders to: 800-234-2411. International callers: 515-237-3670. For expedited customer service, please call between 9 a.m. and 6 p.m. ET, Monday through Friday. You may also write to: *Atlantic* Customer Care, P.O. Box 37564, Boone, IA 50037-0564. Reprint requests should be made to Sisk at 410-754-8219 or atlanticbackissue@siskfs.com. A discount rate is available for students and educators. Please visit theatlantic.com/subscribe/academic. ADVERTISING OFFICES *The Atlantic*, 60 Madison Avenue, Suite 800, New York, NY 10010, 646-539-6700.

PARTNERING TO
ACCELERATE THE SPEED OF RESEARCH

As the largest and most influential nonprofit research program focused on Alzheimer's and dementia globally, the Alzheimer's Association brings together government, academia, companies and philanthropists to support researchers and accelerate science to achieve effective treatments.

Thanks to the commitment of Bill Gates and leadership of Mikey Hoag, the founder of the innovative Part the Cloud program, we're speeding research from the laboratory, through clinical trials and into future therapies. Together, we've doubled the Part the Cloud investment to over $60 million.

We're grateful to these partners, who are bringing us one step closer to ending Alzheimer's and all other dementia.

alzheimer's association | PART THE CLOUD

Learn more about accelerating Alzheimer's research at alz.org/speed

DISPATCHES

OPENING ARGUMENT

CAPITALISM'S ADDICTION PROBLEM

The biggest, best-known companies in the digital economy are getting their users hooked on their products—and undermining the pillars of America's market economy.

BY MAYA MacGUINEAS

An entire generation is losing faith in American capitalism. Widening inequality and declining mobility have led to an erosion of trust in the system. In a 2018 Gallup survey, only 45 percent of young adults said they supported capitalism. Fifty-one percent supported socialism.

These numbers are stark, and so are the failures that underlie them, but history suggests that the failures can be addressed. Inequality has been high before, and American society found ways to reduce it; opportunity, too, can be widened by smart public choices. Fixing the system will not be easy, but we have the tools we need, if we can find the political will to use them.

Capitalism faces another threat, however, and it may prove more fundamental: Americans' growing reliance on technologies—smartphones, social media, gaming consoles, shopping sites—that have become predatory and are quickly becoming more so. These gadgets and platforms have been integrated into nearly everything we do. Reaching for your phone to read a text, peruse your Instagram feed, or play a round of Candy Crush has become second nature, an involuntary response to even the shortest bout of boredom. This reliance—*addiction* is a better word for it—is undermining basic tenets of the American economic model.

In a well-functioning market, consumers have the freedom to act in their own self-interest and to maximize their own well-being. Prices are transparent, and people have a basic level of trust that exchanges of goods, services, and money benefit all parties. Consumers, it is assumed, are discerning and rational in the face of the market's blandishments—an assumption that is crucial to the whole system's ability to produce social good. Of course, markets have never functioned in the real world exactly as they do in economics textbooks. But in the U.S., the system has tended to work, allocating resources efficiently, generating growth, and improving the living conditions and welfare of most people.

But the new powers in the digital age have built their business models on strategies—enabled and turbocharged by self-improving algorithms—that actively undermine the principles that make capitalism a good deal for most people. Their aim is not merely to gain and retain customers, but to create a dependency on their products.

Carmakers, appliance manufacturers, and cosmetics conglomerates have always been happy to prey upon their customers' desires and insecurities if doing so might stoke an irrational desire to buy their products. But their methods—advertising, primarily—are crude compared with the sophisticated tactics available to today's tech giants. The buzzes, badges, and streaks of social media; the personalized "deals" of commerce sites; the camaraderie and thrilling competition of gaming; the algorithmic precision of the recommendations on YouTube—all have been finely tuned to keep us coming back for more. And we are: The average person taps, types, swipes, and clicks on his smartphone 2,617 times a day. Ninety-three percent of people sleep with their devices within arm's reach. Seventy-five percent use them in the bathroom.

The sway these technologies have over us is unhealthy, and the ways in which they can worsen our social relationships and our discourse are worthy subjects of public concern. But addiction to technology poses another threat, too. When we are too hooked on our phones and feeds to make decisions that align with our own self-interest, the free market ceases to be free.

WHERE AN AFFINITY ends and addiction begins is not always clear, but when it comes to our relationships with technology, the signs of addiction are manifest. We are spending more and more hours online, forgoing time with loved ones. Deprived of a decent Wi-Fi connection, we grow irritable. We risk life and limb to send texts from the road. In a 2019 Common Sense Media survey of 500 parents, 45 percent confessed to feeling at least somewhat addicted to their phone. Among parents whose children had their own phone, 47 percent said they believed that their kids were addicted too.

Many technology companies engineer their products to be habit-forming. A generation of Silicon Valley executives trained at the Stanford Behavior Design Lab in the Orwellian art of manipulating the masses. The lab's founder, the experimental psychologist B. J. Fogg, has isolated the elements necessary to keep users of an app, a game, or a social network coming back for more. One former student, Nir Eyal, distilled the discipline in *Hooked: How to Build Habit-Forming Products*, an influential manual for developers. In it, he describes the benefits of enticements such as "variable rewards"—think of the rush of anticipation you experience as you wait for your Twitter feed to refresh, hoping to discover new likes and replies. Introducing such rewards to an app or a game, Eyal writes approvingly, "suppresses the areas of the brain associated with judgment and reason while activating the parts associated with wanting and desire." Indeed, that brief lag between refresh and reveal is not Twitter crunching data—it's an intentional delay written into the code, designed to elicit the response Eyal describes.

A growing chorus of critics is warning of the dangers inherent in such manipulation. Tristan Harris, a former technology designer at Google—and another former student of Fogg's—is a co-founder of the Center for Humane Technology. Harris has likened his iPhone to having "a slot machine in my pocket," and indeed many of its features mimic those of the most addictive games on any casino floor.

Harris has worked to reveal the tactics companies use to keep us hooked. On YouTube, for example, the auto-play function deprives viewers of a natural moment at which to disengage. But it's not just that the site keeps queuing up new clips for you to watch. YouTube's algorithms are designed to hold your interest by serving up content you can't resist, and the algorithms have gotten very good. As of 2017, users were watching a collective 1 billion hours of YouTube videos a day, more than 70 percent of which had been served to us in the form of algorithmic recommendations. Pause over that number for a moment: Nearly three-quarters of the YouTube videos we're watching have been *fed* to us.

The advent of addiction as the business model of some of the country's largest companies—companies with which many Americans interact every day—has fundamentally shifted the balance of power between consumers and producers. This was not always the most likely outcome of the digital revolution. In many facets of our lives, technology has improved transparency and given potential buyers access to a wealth of information they previously lacked. In the analog age, a car shopper would have little more than the Kelley Blue Book—and his own time and willingness to kick tires—to guide him to the best deal. Some of us appreciate that the Instagram algorithm knows whether we are 16 or 60 and whether we prefer Timberland or Tory Burch, and markets to us accordingly.

But the more reliant we become on a given app or platform, the more opportunities its makers have to observe our behavior—and the better they understand our behavior, the better they become at manipulating it to their own ends, whether their business model is serving ads or selling to us directly. It's a virtuous cycle for the producers, and a vicious one for the consumers. Often, we barely recognize that we're participating in it, because the barriers to participation are so low. Many of the most addictive platforms lure us in with the promise of a free service. But Snapchat, TikTok, and Twitch can be considered free only if we decide that our time, and the personal information we're providing, have no value.

DIGITAL LIFE, we must remember, is still in its infancy, and the powers of the corporations that govern that life are still growing. Companies are studying what we search for, what nudges we respond to, and what times of day we engage in certain online behaviors. Soon, cameras and sensors will likely be tracking what frightens, amuses, and arouses us, allowing data collectors to know more about us than we perhaps even know about ourselves. (*The Wall Street Journal* has reported that popular iPhone apps that track users' heart rate and menstrual cycle were passing that information to Facebook, though the social network denied using the information to its advantage.)

The suggestion that we need to be protected from such tactics might seem paternalistic, and if consumers were the rational actors who populate econ textbooks, it might be: A person could decide for herself whether to exchange some amount of privacy for the joy of viewing friends' photos or the convenience of tracking her heart rate. But the addiction economy relies on an asymmetrical exchange of information. Users are expected to blithely surrender their private information for access to services. The data collectors, meanwhile, fiercely guard their own privacy, typically refusing to disclose what information they have, whom they sell it to, and how they use it to manipulate our behavior.

And they do, in fact, manipulate our behavior. As Harvard Business School's Shoshana Zuboff has noted, the ultimate goal of what she calls "surveillance capitalism" is to turn people into marionettes. In a recent *New York Times* essay, Zuboff pointed to the wild success of Pokémon Go. Ostensibly a harmless game in which players use smartphones to stalk their neighborhoods for the eponymous cartoon creatures, the app relies on a system of rewards and punishments to herd players to McDonald's, Starbucks, and other stores that pay its developers for foot traffic. In the addiction economy, sellers can induce us to show up at their doorstep, whether

ILLUSTRATION BY MIKEL JASO / RENDERING BY BORJA ALEGRE they sell their wares from a website or a brick-and-mortar store. And if we're not quite in the mood to make a purchase? Well, they can manipulate that, too. As Zuboff noted in her essay, Facebook has boasted of its ability to subliminally alter our moods.

The company has denied accusations that it uses this power to sell targeted ads; others, however, will surely take advantage of our vulnerabilities. Consider "drunk shopping," a bad habit Americans have acquired in the age of the Buy It Now button: Various surveys have suggested that it is already a multibillion-dollar phenomenon. It's not difficult to imagine any number of technology platforms determining when we're likely to be tipsy—or discerning it from a slur in our speech or typos in our texts—and using that information to time their pitch.

Companies are also leveraging our reliance on them—and their knowledge of us—to get us to pay more for their products. By tracking our purchasing patterns (what we will shell out for an airline upgrade; how sensitive we are to surge pricing), they can make offers based on what each individual is willing to pay rather than what the market will bear. One study found that the price of headphones displayed in Google search results varied depending on users' web history, with prices going up—by a factor of four—when past searches suggested affluence. Another study, by the Brandeis economist Benjamin Reed Shiller, found that while a seller with access to basic demographic information about a specific buyer can gain 0.3 percent more profit than the market price would produce, a seller with access to an individual's browsing history can increase profit by 14.6 percent.

Here, too, a fundamental benefit of capitalism is threatened. Traditionally, buyers have benefited from what economists call consumer surplus—the difference between what we *would* pay for a good and what sellers actually charge. With their newfound information advantage, sellers can retain far more of that surplus for themselves. Whether or not the average American understands the concept of consumer surplus, individualized pricing violates a sense of fairness: We've long assumed—but can assume no longer—that the price you pay is the price I pay.

NONE OF THIS is an argument against progress. Technology has helped create a world of convenience and abundance, and it will continue to do so. Properly channeled, it can improve the functioning of a market economy. But for society to harness technology's potential, we must understand how it is reshaping our lives.

In the past, we may not have entirely trusted General Motors or General Electric, but most people didn't believe they were warping our desires or robbing us of our time and agency. By contrast, the biggest, best-known companies in the contemporary American economy—Facebook, Amazon, Google—are now viewed with growing suspicion and mixed emotions. A Pew survey found that the percentage of Americans who think technology companies have a net positive impact on the country had fallen from 71 percent in 2015 to 50 percent in 2019. In part, such sentiments flow from the dawning realization that these and other tech behemoths have hooked us on their services in order to profit from us. But we're also beginning to recognize the scale of the time we've lost. We're dismayed with how we're spending our days, but feel powerless to abandon our new bad habits, as anyone who has deleted, then reinstalled, the Facebook app can attest.

THE MOST ADDICTIVE NEW DEVICES AND APPS MAY NEED TO BE PACKAGED WITH A STERN WARNING ABOUT THEIR DANGERS AND SOLD ONLY TO CUSTOMERS OF AGE.

Will these discontents push people toward revolutionary backlash? Perhaps not. But that's almost beside the point. The capitalism that is taking shape in this century—predatory, manipulative, extremely effective at short-circuiting our rationality—is a different beast from the classical version taught in university classrooms. It cannot be regarded as beneficent and should not be given the benefit of the doubt. Profit motive and the means to create dependency is too dangerous a combination.

American society has long treated habit-forming products differently from non-habit-forming ones. The government restricts the age at which people can buy cigarettes and alcohol, and dictates places where they can be consumed. Until recently, gambling was illegal in most places, and closely regulated. But Big Tech has largely been left alone to insinuate addictive, potentially harmful products into the daily lives of millions of Americans, including children, by giving them away for free and even posturing as if they are a social good. The most addictive new devices and apps may need to be put behind the counter, as it were—packaged with a stern warning about the dangers inherent in their use, and sold only to customers of age.

Perhaps the most immediate and important change we can make is to introduce transparency—and thus, trust—to exchanges in the technological realm. At present, many of the products and services with the greatest power to manipulate us are "free," in the sense that we don't pay to use them. But we are paying, in the form of giving up private data that we have not learned to properly value and that will be used in ways we don't fully understand. We should start paying for platforms like Facebook with our dollars, not our data.

So far there is no better system than market-based capitalism to balance freedom, fairness, efficient allocation of goods, and growth. Given the fondness for free markets that tends to dominate among Silicon Valley executives, tech innovators ought to tread carefully if they want that system to survive. *A*

Maya MacGuineas is the president of the Committee for a Responsible Federal Budget and runs its new program Capitalism, Technology, and the Economy.

PROMOTION

A

The Atlantic

Discover the ideas shaping history.

The Atlantic has been making sense of the world since 1857. When you become a subscriber, you'll not only strengthen our tradition of independent journalism—you'll also gain unlimited access to stories that help you navigate what's ahead.

Subscribe at TheAtlantic.com/join.

A
The Atlantic
How to Stop a Civil War

SKETCH

TIGHT WITH A DOLLAR

Mitch Daniels has kept Purdue's tuition under $10,000 for seven straight years. How has he done it?

BY ANDREW FERGUSON

"I'll tell you a funny story," said Mitch Daniels, the president of Purdue University. It was the day before the first home football game of the season and he was sitting in his corner office, overlooking the postcard-perfect quad.

"So the cost of a year of undergraduate college at Purdue University, tuition and fees, is $9,992. I'm proud of that number.

"One day I'm looking at one of those college guides, and it said, 'Tuition and fees: $10,002.' I called up our people and said, 'Lookit here, there's a mistake. You got the wrong number.' They said, 'That's not a mistake.' I said, 'Yes, it is. Believe me. *I know*.' They went back and checked and they said, 'No, that's the right figure.'

"It just bugged me to death. Does Walmart have a special and price it at $10.02? I found out what happened. There's a second installment on a preexisting gym fee that got tacked on. Ten dollars plus $9,992 equals $10,002.

"Next time I'm at the gym, I ask the guy who runs it, 'How's it going here?' He said, 'Membership's up; we're doing well, making a little profit.' I thought, *Okay, that's all I needed to know*. And the next meeting of the board of trustees, they repealed that fee.

"So now we're back to $9,992," he said. There was both self-deprecation and a note of triumph in his chuckle. "I don't know why it bugged me so much, but it did."

He may not know why, but I do, and so does everybody who's followed Daniels in his nearly 20-year public career. He is notoriously tight with a dollar. Friends recall that as a beginning golfer, he played with a garden glove he already had instead of a store-bought, $3 golf glove. His parsimonious nature, when applied to public matters, is one reason he received more votes than any other officeholder in Indiana history in 2008, when he won reelection as governor, and it's why he and his university—a 150-year-old land-grant school in West Lafayette, Indiana—are objects of curiosity and even wonderment in the world of higher education.

Most of the attention centers on that all-important number, 9,992. Not only is that the dollar amount an in-state student will pay Purdue for tuition and fees next year; it is also the amount such a student paid Purdue when Daniels became university president, in 2013. The university has also reduced the price of food services and textbooks. An undergraduate degree from Purdue, in other words, is less expensive today than it was when Daniels arrived.

Only when seen against the inflationary helix of American higher education can the singularity of this achievement be fully appreciated. The college-affordability crisis has become a staple of academic chin pulls, news stories, congressional hearings, and popular books written in tones of alarm and commiseration. From 2007 to 2017, the average annual cost of a degree at a four-year public university like Purdue rose from about $15,000 to more than $19,000—a jump of 28 percent after taking inflation into account. Only health care rivals higher education as an economic sector so consumed by irrational inefficiencies and runaway prices.

The consequences are plain. Students and their parents have acquired debt totaling more than $1.5 trillion, more than all credit-card debt held in the U.S., and sufficiently large, according to the Federal Reserve, to be a drag on the economy. Roughly 70 percent of college students take out loans to finance their education. The average undergraduate leaves school more than $25,000 in debt.

At Purdue, by contrast, nearly 60 percent of undergrads leave school without any debt at all.

So how did Purdue do it?

"I ALWAYS SAY it's easier to explain what we *didn't* do," Daniels told me. "We didn't try to get more money from the state. We didn't shift from full-time faculty and fill the ranks with cheaper, part-time adjunct faculty. We haven't driven up our percentage of international or out-of-state students," who pay more than in-staters. Each of these measures has been taken up by other public universities, even as most have increased their in-state tuition.

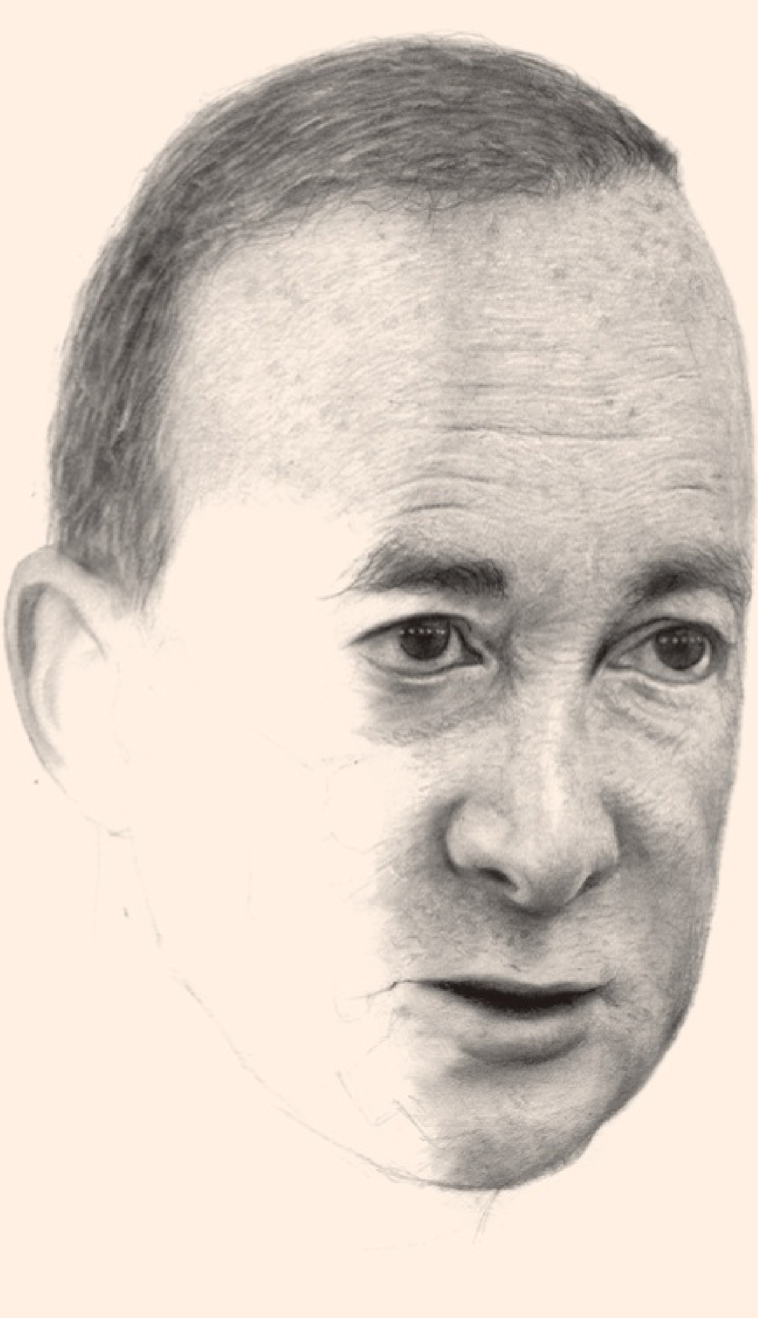
Proud as he is of his number, Daniels worries that all the attention paid to the tuition freeze scants the improvements that the school says it has simultaneously made in educational quality and financial health.

Increased enrollment since the freeze has brought in an extra $100 million, reckons Chris Ruhl, the university's treasurer and chief financial officer. The benefits of the improved balance sheet can be seen across campus. According to the university's figures, Purdue's full-time faculty at all levels has increased, resulting in a student-teacher ratio of 13 to 1, compared with the Big Ten average of more than 15 to 1. Faculty pay is up too. The salary of a full-time professor at Purdue has increased by 12 percent over the past five years, against a conference-average increase of 7 percent.

Meanwhile, a visitor can't help but notice that large stretches of Purdue's campus are construction sites: for new research facilities; new residence halls; a learning center the size of a power plant, which is what stood in its place until six years ago. Applications for admission are up 37 percent.

Tuition increases were once a fact of life at Purdue. The chair of the board of trustees, Michael Berghoff, recalls his first meeting as a trustee, more than a decade ago, during which the school's annual tuition hike came up: "Most discussions were about how much, very little about whether it was necessary."

A few years later, the board offered Daniels the presidency—a controversial choice, Berghoff told me, owing to Daniels's lack of academic experience beyond his Princeton undergraduate degree and law degree from Georgetown. During his eight years as governor, Daniels had become famous for his penny-pinching, as he had in his previous job directing President George W. Bush's budget office. Bush nicknamed him "The Blade." On the day when representatives of government agencies came to pick up their copies of the annual federal budget, Daniels played the Rolling Stones' "You Can't Always Get What You Want" over the loudspeaker. As governor, in his effort to balance the budget and pile up a surplus, he devised a host of economizing measures, including printing all state documents in the narrowest font he could find to save on paper and ink. "No saving is too small to disregard," he said then and says now.



So Berghoff wasn't completely surprised when Daniels, at his first trustee meeting, floated the idea of a tuition freeze. "I thought it would be a one-off, just to send a message that we could break this long, long run of increases," Daniels told me. "It turned out we could do it a second year, then the third. Then it became the thing we're known for."

In Indianapolis, Daniels's administration was known for selecting successful businesspeople and placing them across state government. He's done the same at Purdue. Michael B. Cline, the former head of the state's transportation department, is now running Purdue's administrative operations, and Ruhl, the former state budget director, is now the university's CFO and treasurer.

What they described to me could be a new model—a change in the culture—of finance in higher education, bringing market pressures to bear on processes that had never faced them before. Savings came, Daniels said, "from a couple of big things, and lots of little things." Low-hanging fruit was plucked early: The residence halls, which housed young people who all owned cellphones, still used landlines, so they were quickly removed. Payroll, which incredibly was still using paper time sheets, was digitized. Food service was centralized.

Daniels also addressed complaints from students and faculty about the price of textbooks. After six months of weighing options, Purdue struck a deal with Amazon to provide textbooks, saving students 30 percent on average and more than $2 million in the first few years, according to the school. The arrangement lapsed recently, but Amazon's first brick-and-mortar store is still on campus, and textbook costs remain lower than before.

And so a virtuous circle was established, according to Purdue and its president. The predictably flat tuition attracted more students, creating a larger student body that brought in increased revenue, which allowed for the hiring of more and higher-quality faculty, whose research the university could profitably license to the private sector, where alumni, delighted at the celebrated achievements of their alma mater, helped increase donations by 136 percent over six years, which in turn has helped keep the freeze in place.

While Daniels's approach wins mostly praise on campus, David Sanders, a biological-sciences professor and frequent critic of Daniels's policies, told me he hears quiet grumbles. "The freeze is a marvelous admissions marketing tool," Sanders said. But the surge in enrollment "puts a lot of stresses on the city and the campus."

ILLUSTRATION BY ARINZE STANLEY

In his own department of biological sciences, despite the campuswide improvement in the student-teacher ratio, "introductory-class sizes are much larger," requiring more students to monitor lectures remotely. And as resources get reallocated, "there's far more competition between faculty and between departments," he said. "The institution is less collegial." (Most faculty members contacted for this story declined to comment.)

HOWEVER WIDELY THESE misgivings are shared, no one denies that the freeze and the other innovations have set Purdue in a new direction, one much more in keeping with Daniels's brand of populism.

"When I got here," he told me, "there was an effort to become the 'Stanford of the Midwest,' an elite institution along those lines," which would have meant shrinking enrollment, cutting out kids at the low end of the class to skew the average toward the top.

Daniels speaks frequently of Purdue's mission as a land-grant school, chartered under Civil War–era legislation that helped establish colleges devoted to teaching agriculture, engineering, and other practical arts to the children of prairie pioneers. "We were put here to democratize higher education," he said.

The number of domestic undergraduate "underrepresented minorities" at Purdue (URMs, in the acronym-happy world of college admissions) grew from 2,483 in 2012 to 3,461 in 2019. Yet as the student body has also grown, the percentage of URMs among undergraduates has remained about 10 percent—while black and Latino students alone account for 36 percent of the U.S. college-age population.

Daniels expresses frustration at the relative lack of progress. A few years ago, he got the idea for the university to sponsor high schools in Indiana's largest cities. "We realized we had to build our own pipeline if we wanted to recruit minorities and poor kids," he said. "We couldn't wait on the public high schools to catch up to us." The original Purdue Polytechnic High School, in Indianapolis, will graduate its first class, of 115 kids, in 2021. "My dream is that we can slip a Purdue scholarship in with each diploma," he said.

AT PURDUE, NEARLY 60 PERCENT OF UNDERGRADS LEAVE SCHOOL WITHOUT ANY DEBT.

Even so, Daniels hasn't escaped the controversies that attend diversity issues in higher education. Last November, Purdue's student newspaper released audio of Daniels discussing faculty hiring with a group of mostly minority students. "At the end of this week," he told them, "I'll be recruiting one of the rarest creatures in America—a leading, I mean a really leading, African American scholar."

Social media erupted. The hashtag #IAmNOTACreature took off on Twitter. D'Yan Berry, the president of Purdue's Black Student Union, wrote that she was "disappointed but not at all surprised by his reference … to Black students as creatures. It afflicts me that this is how he speaks even when 'boasting' on students."

After complaining that his figure of speech had been misinterpreted, Daniels took two weeks to issue an apology. "The word in question was ill chosen and imprecise and, in retrospect, too capable of being misunderstood," Daniels wrote. "I accept accountability for the poor judgment involved."

Beyond the new Purdue-run high schools, the other great populist initiative of Daniels's tenure—and perhaps the most controversial—is the purchase, for $1, of the for-profit, mostly online Kaplan University, from the Washington, D.C., businessman Donald Graham, in 2017. Overnight, Purdue Global, as it's now called, brought approximately 30,000 online students, most of them part-time, into Purdue's orbit and made the school one of the largest online educators in higher ed.

Daniels had long thought that online education would be crucial to expanding the school's mission of accessibility, but the idea of building the infrastructure from scratch was daunting. The purchase of Kaplan U solved the problem. Kaplan—best known for its test-prep service—continues to provide back-end and marketing services for Purdue Global in return for a percentage of revenue.

Daniels presented the Kaplan deal to the Purdue community as a fait accompli; the trustees quickly approved it. Reaction ranged from surprise to puzzlement to deep skepticism. Foremost was the worry about commingling the operations of a public university with a for-profit business. "It's an attempt to inject free-market principles into public education," says Bill Mullen, an American-studies professor. It's "a way of blurring the lines between public and private. There's less of an appreciation for higher education as a *public* good."

But Daniels appears unfazed by the criticism, and the larger Purdue community seems quite happy with the way the institution has grown in size and reputation. As it happens, Graham visited the campus last September, and we tagged along as Daniels snaked his way through the stadium parking lot, choked with tailgaters fussing over grills the size of Ping-Pong tables. Young and old greeted him like a rock star—a short, balding rock star. No one called him by his title or his last name. *Mitch!*

A grill master in a Purdue apron, Purdue sweatshirt, and Purdue cap saw me scribbling and offered a comment. His name was Chuck, he said. He was from Greencastle, and his two kids had gone to Purdue. "This man here," he said, pointing at Daniels, who was grinning for an endless line of selfies, "saved me *thousands* of dollars."

By the time we had crossed the parking lot, half an hour later, Don Graham was beaming from his trip through the delighted scrum of parents and students and alumni.

"These people love you, Mitch!"

Daniels shrugged but was clearly pleased.

"Well," he said, "they know it's reciprocated." 𝒜

Andrew Ferguson is a staff writer at The Atlantic.

MATERIAL WORLD

IT'S ALL SO … PREMIOCRE

A guide to the new age of Potemkin luxury

BY AMANDA MULL

TWO YEARS AGO, while trying to rent and furnish a new apartment, I was defeated repeatedly by the answer to the question *How much could it possibly cost?* Getting a key cost $3,200 when it required paying a broker fee to some guy named Steve. Four planks of wood and some metal piping cost $1,499 when they were a West Elm bookcase. I had moved and bought furniture before, of course, but the financial horror is fresh every time. This go-round, the kitchen chairs were what broke me.

Like a lot of young people aspiring to move upward, I was in the market for some furniture crafted by Charles and Ray Eames, the mid-century designers who helped introduce modernism to the United States. The couple's work has been central to the furniture style's American revival in the past 20 years, but if you encounter high-end interior design mostly on Instagram and Pinterest, you probably know the Eameses by their chairs. The most famous pieces include a leather lounger-and-ottoman set with a curved wooden base that's particularly beloved by men who work at start-ups, as well as a series of dining chairs with colorful molded-plastic bucket seats. Arguably the most recognizable of the latter is nicknamed the "Eiffel" for its trussed-metal leg structure; one of the most popular reproductions costs $595 from Herman Miller, the design's original manufacturer. I needed at least four.

Nearly as quickly as the internet dashed my hopes of owning the coveted chairs, it came to my rescue—by showing me the wares inside its coat. In the days after I'd spent a few minutes browsing for the real thing, ads on Instagram, Facebook, and Google offered up identical chairs at virtually every price level from discount decor retailers such as Wayfair and Overstock. I could pay $35, $60, or $100 each for chairs with no discernible differences from one another, or from the "Eiffel" they were legally aping (abetted by copyright and patent laws that make it difficult to protect design as intellectual property). Absent any real information about what I'd actually need to spend to end up with something decent to sit in, I was left to decide how much it was worth to me to announce to my visitors and Instagram followers that I'm also a mildly unimaginative person who appreciates Eames.

The presence of many nice-enough choices without any meaningful way to distinguish among them is a fundamental dysphoria of modern consumerism. Anybody can track in intimate detail how the wealthy and stylish spend their money via social media, and just when you've learned exactly what you can't have, the internet swoops in to offer a look-for-less utopia of counterfeits, rip-offs, and discount cashmere sweaters, perfectly keyed to the performance of a lifestyle that young Americans desperately want but can't afford.

IT WAS 2017, and Venkatesh Rao, a writer and management consultant, was having lunch at a fast-casual vegan chain restaurant in Seattle when the phrase *premium mediocre* popped into his head. It described the sensation he was having as he tucked into his meal—one of a not-unpleasant artificial gloss (airline seating with extra legroom; "healthy" chickpea chips that taste like Doritos; $40 scented candles) on an otherwise thoroughly unspecial experience. I had a similar eureka moment in early 2018, when the portmanteau *premiocre* came to me while I was trying to parse the discriminating features among mid-priced bed linens from several start-up brands. I found Rao's observation while checking to see whether, against all odds, I had come up with an original idea. Instead, I'd noticed something that many others also saw wherever they looked, once they had heard the idea articulated.

When Rao mentioned "premium mediocre" to his wife, who was eating with him that day, she immediately got it. So did his Facebook friends and Twitter followers. "People had started noticing a pervasive pattern in everything from groceries to clothing, and entire styles of architecture in gentrifying neighborhoods," he told me. Premium mediocrity, by his definition, is a fancy tile backsplash in an apartment's tiny, nearly nonfunctional kitchen, or french fries doused in truffle oil, which contains no actual truffles. It's Uber Pool, which makes the luxury of being chauffeured around town financially accessible, yet requires that you brush thighs with strangers sharing the back seat.

Rao pegs the beginning of premium mediocrity's ascent to the 2008 financial collapse, when cupcakes ruled the culinary landscape. The cupcake is a classic example: It's a single-serve dessert on demand, minus the true indulgence of buying or making a whole cake to enjoy over time or share with family or friends. Cupcakes look great in photos, but as has been frequently noted in the past decade, many of them are not exactly delicious. I remain unconvinced that anyone ever took genuine pleasure in eating a dry, fist-size Crumbs Bake Shop cupcake topped with a mountain of hardened buttercream.

PHOTOGRAPH BY TAMARA SHOPSIN AND JASON FULFORD

As with many aesthetically pleasing food trends that have thrived in the era of constant internet access, the value of a deluxe cupcake isn't necessarily in its physical consumption. Instead, it's more like an edible Gucci logo belt, or a sprinkle-topped boutique hotel with a beautifully decorated lobby bar and painfully cramped showers. These goods are the least expensive way to gain temporary entry to a particular consumer class—for example, Gucci belts cost $450, while one of the brand's bags could easily set you back $3,500. The brand's belts are not any better at belting than many far less expensive options, but they provide a conduit for a person of middling means to transport herself into the lavish life she wants, if only within the highly edited confines of a carefully staged Instagram photo.

Crumbs Bake Shop expanded to 79 locations in the United States before it went out of business in 2014, but the value system that enabled it remains: A plethora of subpar options is the foundation of modern shopping. Most Millennials were too young to get a foothold in the economy before it fell out from under them, and now, confronted with the precariousness of working- and middle-class life in the decade after the Great Recession, the most many can do is playact modern success for as long as possible while hoping the real thing happens eventually.

All of the faux-Eames chairs the internet tried to sell me are props for this Kabuki theater: things you buy because they're masquerading as more exceptional than they are. Some of these products are perfectly good at fulfilling their function, but they paper over a problem of class mobility that consumer choices can't change. The market has looked upon the people it serves and said, "Let them eat cupcakes."

SOCIAL STRIVERS HAVE been buying knockoffs in America since modern consumerism took shape, in the decades after World War II. The advent of industrialized manufacturing and mass media helped create marketing as we know it, but it's hard to imagine that the internet would be so bloated with speciously opulent mid-priced home decor and personal-wellness products if not for celebrities and, more recently, Instagram.

Rao is right to date the acceleration of premium mediocrity to the late 2000s, but it wasn't just the recession that drove the phenomenon. The streets of Los Angeles and New York had turned into paparazzi wonderlands, fueled by a mixture of booming tabloid sales and new blockbuster gossip blogs such as TMZ. Photographers tailed Paris Hilton, Lindsay Lohan, and Nicole Richie while they bought lattes and spilled out of nightclubs; then journalists and bloggers detailed exactly what they were wearing, carrying, and driving for a ravenous audience, often offering up "looks for less" to help readers imitate what they saw. This was the first time most Americans got such an exhaustive and unvarnished look at how famous people behave when they're not on the red carpet—a glimpse of the wealth that had previously been consigned to the pages of glossy fashion magazines, where it was cleaned up and made tasteful, or to the personal knowledge of maids, cooks, and assistants.

The meteoric popularity of Instagram in the 2010s has meant that not only can the famous detail their favorite clothes, snacks, and skin-care lines for their fans, but so can the run-of-the-mill wealthy, who sometimes amass audiences in the six or seven figures. With that many followers, the random rich can charge brands to feature their stuff—the upshot being that, absent a notable skill or expertise, a passel of ordinary and in many cases insipid people parlay family wealth or a remunerative marriage into a business all its own. For many of us, however, luxury is only creative artifice. In previous generations, *fake it 'til you make it* might have meant embellishing your résumé to land a stable corporate job with a pension. Now it means pairing a Gucci belt with a Zara wardrobe and hoping you're hot enough to eventually hawk teeth-whitening gadgets.

> EVERY TIME I DARED TO DREAM THAT I'D SOMEHOW HACKED TASTE AFTER I PURCHASED THE FAKE EAMES CHAIRS, THE CHAIRS QUICKLY REMINDED ME OF MY HUBRIS.

Even if conspicuous consumption is a less-than-reliable career path, sometimes the look-for-less products we buy work great. And when they do, you feel like you're slipping through a tear in the fabric of capitalism. My $250 bookcase displays my books—both in real life and in photographs—just as well as the $1,499 one I balked at buying. I recently spent $35 on a viral hair gadget that makes my hair look professionally styled in a way that my $300 blow-dryer never has. It's intoxicating to believe for a moment that maybe rich people are the ones who have been getting conned all along, spending their money on cars and vacations and sweaters that aren't that much nicer than what regular people can afford.

Every time I dared to dream that I had somehow hacked taste in the year after I purchased the fake Eames chairs, the chairs quickly reminded me of my hubris. Money buys you plenty of advantages in a society built to reward its accumulation, and it almost certainly buys you chairs that don't need to be flipped over once a week to have their screws tightened. That's what I regularly did until a visiting friend tumbled out of one and onto the floor, at which point my embarrassment about my own premium mediocrity overtook the financial worries that had consigned me to it. I bought solid metal dining chairs, which were more expensive than my knockoffs but less likely to fail at their one job. In the end, the internet worked exactly as it's been designed to: I caved to the thrill of a deal that felt too good to be true, and when that turned out to be the case, I went back out to shop again.

Amanda Mull is a staff writer at The Atlantic.

THE PERKS OF BEING A WEIRDO

How not fitting in can lead to creative thinking

BY OLGA KHAZAN

My childhood was, by most definitions, pretty strange. I grew up a Russian Jewish immigrant in Midland, Texas, in a region whose biggest claims to fame are being the onetime home of George W. Bush and the inspiration for *Friday Night Lights*. In preschool, I got in trouble for not praying before eating my snack; later, I didn't know what this "Super Bowl" everyone kept talking about was. I felt hopelessly different from everyone else in our town.

Even after we moved to a Dallas suburb, I never encountered another Russian immigrant kid like me. I rode the bus alone. I spent almost every evening alone. I began talking to myself—a habit that has unfortunately stuck. Once, someone toilet-papered our house, and I had to explain to my parents that this is what American kids do to losers. Undeterred, my dad eagerly raked the toilet paper into a garbage bag and put it in my parents' bathroom for future use. "Free toilet paper!" he said happily over dinner.

All I wanted to be was normal. I wanted to be as American as my classmates; I wanted a past that, when I explained it to people, compelled no one to ask "Why?" about any part of it. But with time, I've come to realize that there's an upside to being different from everyone around you. In fact, a body of social-science research suggests that being an oddball or a social reject can spark remarkable creativity.

Sharon Kim, who teaches at Johns Hopkins University's business school, told me she'd always noticed that some people credit their creative successes to being loners or rebels. Kim wondered whether social pariahs are actually more creative, so she decided to test the theory by inviting some volunteers to her lab to complete a couple of exercises. Before they began, Kim and her colleagues "rejected" some of the study subjects by telling them they weren't picked to work as part of "the group." There was no group—Kim and her team just wanted to make them feel left out. Others weren't snubbed in the same way. Kim asked the participants to perform a pair of exercises on paper. In one, they were asked to determine what united a series of seemingly unrelated words (*fish*, *mine*, and *rush*, for instance—the answer is *gold*). In the other, they were told to draw an alien from a planet very unlike our own.

The rejects, it turned out, were better at both exercises. For the alien task, the non-rejected participants drew standard, cartoonish Martians. But the rejected participants drew aliens that looked radically different from humans—they had all of their appendages sticking out of one side of their body, or their eyes below their nose. The outcasts' drawings were more creative, as rated by three independent judges.

So rejection and creativity *were* related, Kim determined. But with a caveat. The advantage was seen only among participants who had an "independent self-concept"—meaning they already felt they didn't belong. There appeared to be something about being a weirdo that could uncork your mind and allow new ideas to flow.

For many people, that effect starts in childhood. When Arnold M. Ludwig, an adjunct psychiatry professor at Brown University, examined the lives of more than 1,000 eminent people—including Frida Kahlo, Jean-Paul Sartre, and John Lennon—for his book *The Price of Greatness*, he found that creative types, such as artists and writers, were more likely than, say, businesspeople to be considered "odd or peculiar" as children, and more likely than public officials or soldiers to be considered "different" as adults. In his 1962 study of architects, the psychologist Donald W. MacKinnon similarly found that the families of more creative architects had moved around a lot when they were kids, which appeared "to have resulted frequently in some estrangement of the family from its immediate neighborhood," he said. Not surprisingly, many of the more creative architects said they'd felt isolated as children.

AN UNUSUAL CHILDHOOD is not the only thing that can make you more creative.

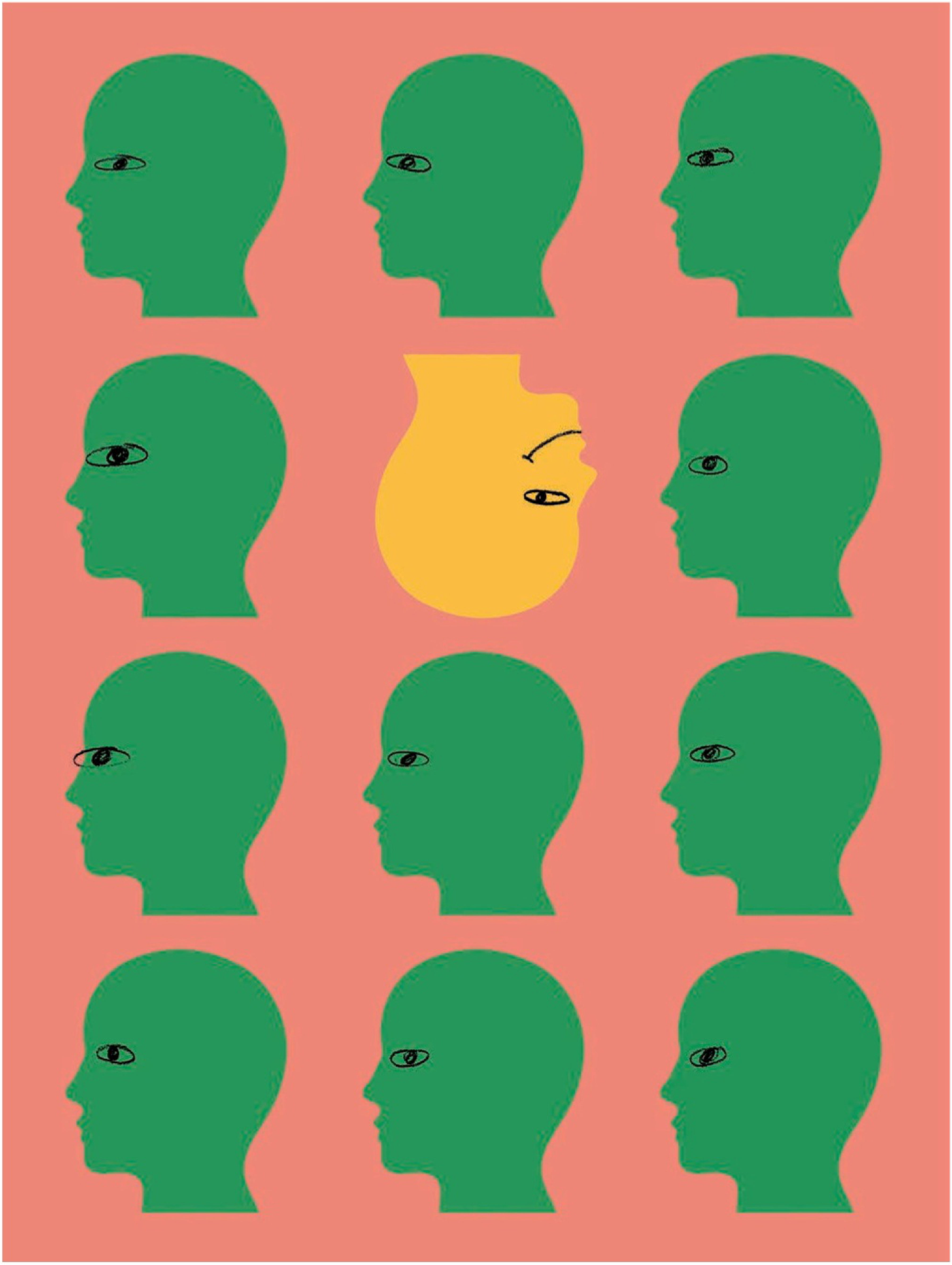


ILLUSTRATION BY ALEX MERTO

Being considered “weird” in your culture can also enhance an element of creativity called “integrative complexity.” People who are strong in integrative complexity tend to handle uncertainty well and excel at reconciling conflicting information. They’re often able to see problems from multiple perspectives.

Chris Crandall, a psychology professor at the University of Kansas, told me that people who are on the periphery of society tend to be freer to innovate and change social norms. “Fashion norms come from the bottom up,” he said. Outsiders are less concerned with what the in-crowd thinks of them, so they have more leeway to experiment.

In fact, people who don’t fit neatly into a particular group have been found, over and over, to perform better at outside-the-box thinking. Foreigners are often considered strange, but there are psychological advantages to feeling like a stranger. Children who are exposed to multiple languages—perhaps because, like me, they were raised in a country far from where they were born—are better able to understand an adult’s perspective, and they may go on to become better communicators overall. In one experiment, people who had lived abroad were especially good at finding hidden solutions to word and conceptual problems. That might help explain why Pablo Picasso began experimenting with Cubism in Paris, and George Frideric Handel composed his *Messiah* while living in England.

Happily for those who have never lived abroad, this creativity boost can also happen for people who live in unusual frames of mind, rather than exotic locales. In a small study, Rodica Damian, an assistant psychology professor at the University of Houston, and her colleagues had college students engage in a virtual-reality exercise in which the laws of physics didn’t apply. In this virtual world, things fell up instead of down. When compared with another group that performed an exercise in which the laws of physics functioned normally, those who had the physics-warping experience were able to come up with more creative answers to the question “What makes sound?”

PEOPLE WHO ARE ON THE PERIPHERY OF SOCIETY TEND TO BE FREER TO INNOVATE AND CHANGE SOCIAL NORMS.

Damian has a theory she’s researching: that all kinds of unusual experiences can boost creativity. For example, people often report having breakthroughs after magic-mushroom trips or extreme adventures. “The idea behind this is that once you’ve experienced things that violate norms and rules and expectations, you’re more open to more things like that,” Damian told me. “You experienced that the world doesn’t have to work by your rules, so you can break the rules.”

Of course, more weirdness is not always better. If something *too* jarring happens to you, just dealing with it might use up all your mental capacity. It might be weird for, say, a grizzly bear to invade your yard and destroy your car. But rather than basking in your newfound creativity afterward, you’re probably going to be calling your insurance company.

Regardless, trying to think about your weirdness in a positive way—a process called cognitive reappraisal—can help you cope with the adversity that often comes with being an outlier. Reframing what makes you weird as being what gives you strength can, ultimately, make you happier.

UNUSUAL PERSPECTIVES can also boost the decision-making power of the broader group you’re a part of. Solomon Asch’s famous experiments in the 1950s revealed the occasional ludicrousness of conformity. When told to match a line with one of three other lines (two of which were obviously different sizes), participants selected a wrong option about one-third of the time when others in the group, confederates working with the researcher, gave that wrong answer too. The experiment has become a classic example of how willingly people follow a crowd. When one participant was later asked why he conformed in this way, he said he was worried about being seen as “peculiar.” That is, he didn’t want to be considered weird.

But less well known is a variation of the experiment in which Asch introduced another variable—this time, one of the confederates gave the right answer while the rest of the crowd tried to mislead the participant. Having just one person who broke with the majority reduced conformity among the responses by about 80 percent. Perhaps the participants in those trials felt as though they and the dissenter could at least be weird together. Interestingly, they were less likely to conform even if the dissenter disagreed with the crowd but was *still* wrong. The dissenter appeared to give the participants permission to disagree.

The liberating effect of dissenting viewpoints has been replicated in other studies, and it underscores the value of having a diverse array of people around to poke holes in prevailing ideas. The reason minority views are so potent, according to research on persuasion, is that people tend to scrutinize them more carefully. When we hear a dissenting view, we think more critically about what’s being said, prompting a consideration of different sides of an issue. Majorities, meanwhile, spur us to think only about data that support the majority perspective. As Charlan Nemeth and Jack Goncalo put it in the book *Rebels in Groups*, “Minorities stimulate more originality while majorities stimulate more conventionality of thought.”

Unfortunately, though, when people stop being “weird,” these benefits go away. When people who were once in the minority become the majority, research shows that they tend to become more closed-minded. Weirdness has its perks, but nothing is weird forever. *A*

Olga Khazan is a staff writer at The Atlantic. *This article is adapted from her forthcoming book,* Weird: The Power of Being an Outsider in an Insider World.

PROMOTION

FLOODLINES

A NEW PODCAST FROM *The Atlantic*

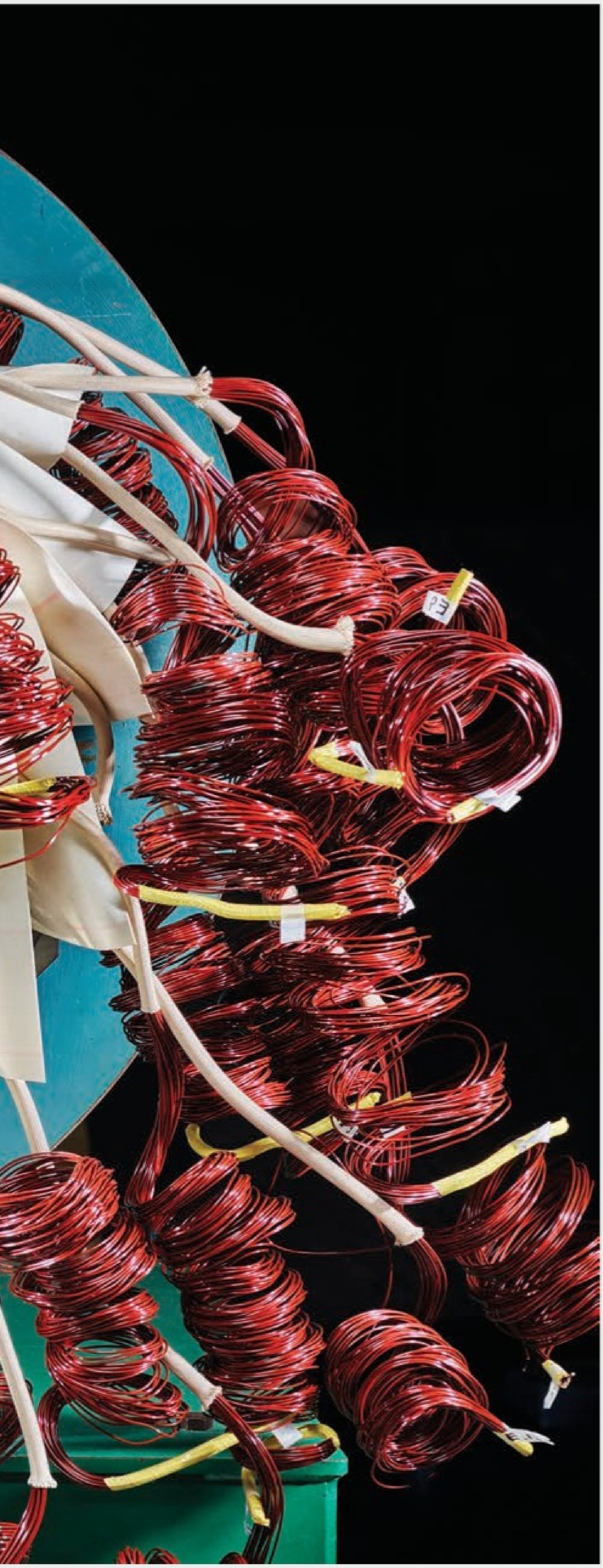
ON AUGUST 29, 2005, Hurricane Katrina made landfall in Louisiana. The storm's devastation—and the man-made catastrophe that followed—dominated national news coverage for weeks.

But that was only the beginning of the story.

In this podcast series for *The Atlantic*, Vann R. Newkirk II reexamines one of the most misunderstood events in modern American history.

Learn more at
THEATLANTIC.COM/FLOODLINES

Listen on
Apple Podcasts



Fine Motor Skills

Photographs by Christopher Payne

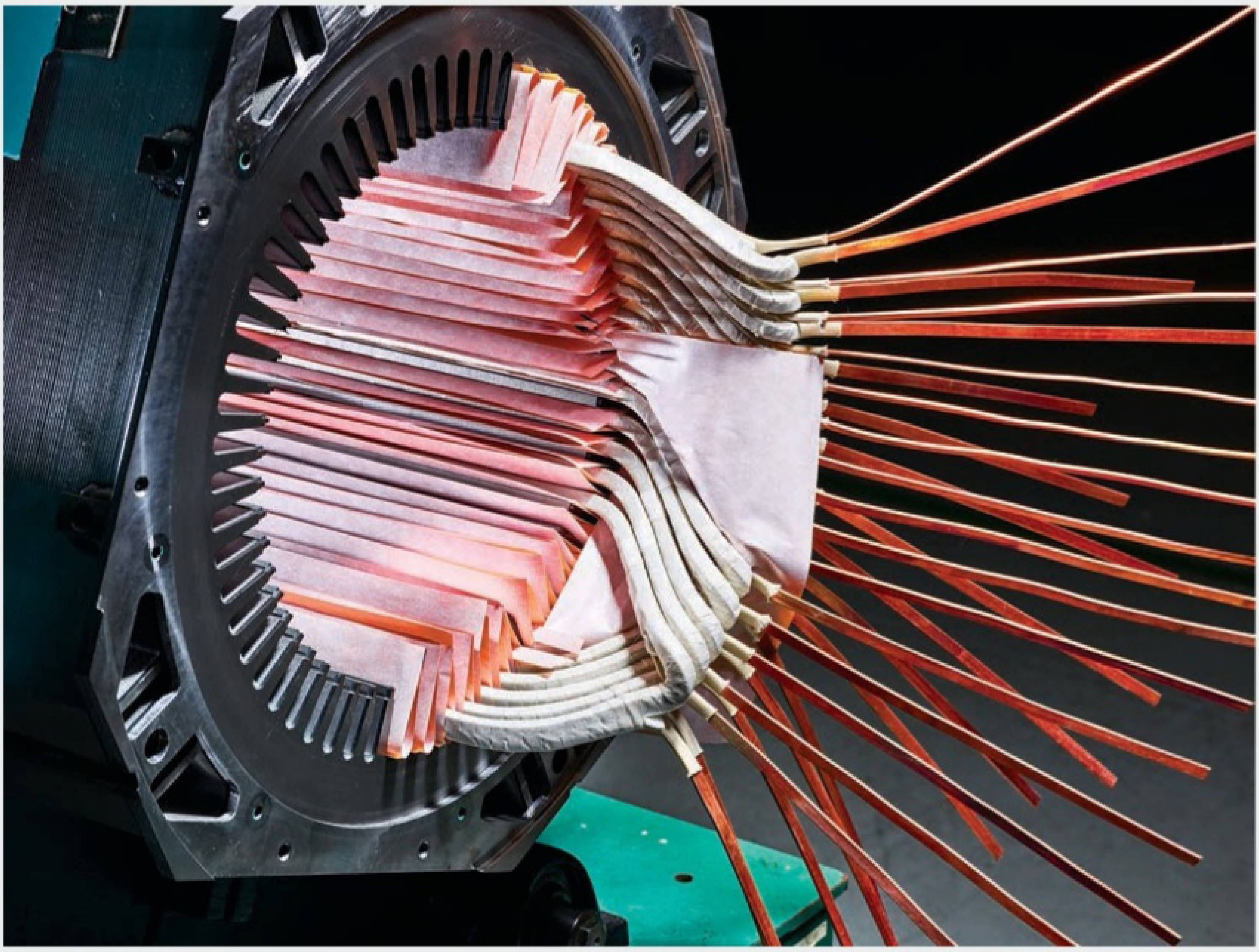
The workers at the Ward Leonard factory in Thomaston, Connecticut, build motors for heavy industrial and military use. Unlike most other motors manufactured these days—those found in household appliances such as washing machines and dryers, for example—Ward Leonard's are fabricated and assembled by hand, in accordance with a painstaking process. That process involves inserting copper coils into metal slots fitted with insulating paper, wrapping the ends of the coils in tape, and dipping the whole thing in resin. It is still the best way to ensure that the finished motors are able to withstand the decades of wear they will face on Navy ships, oil rigs, locomotives, freight elevators, and the like. Some motors take two workers a full week to complete.

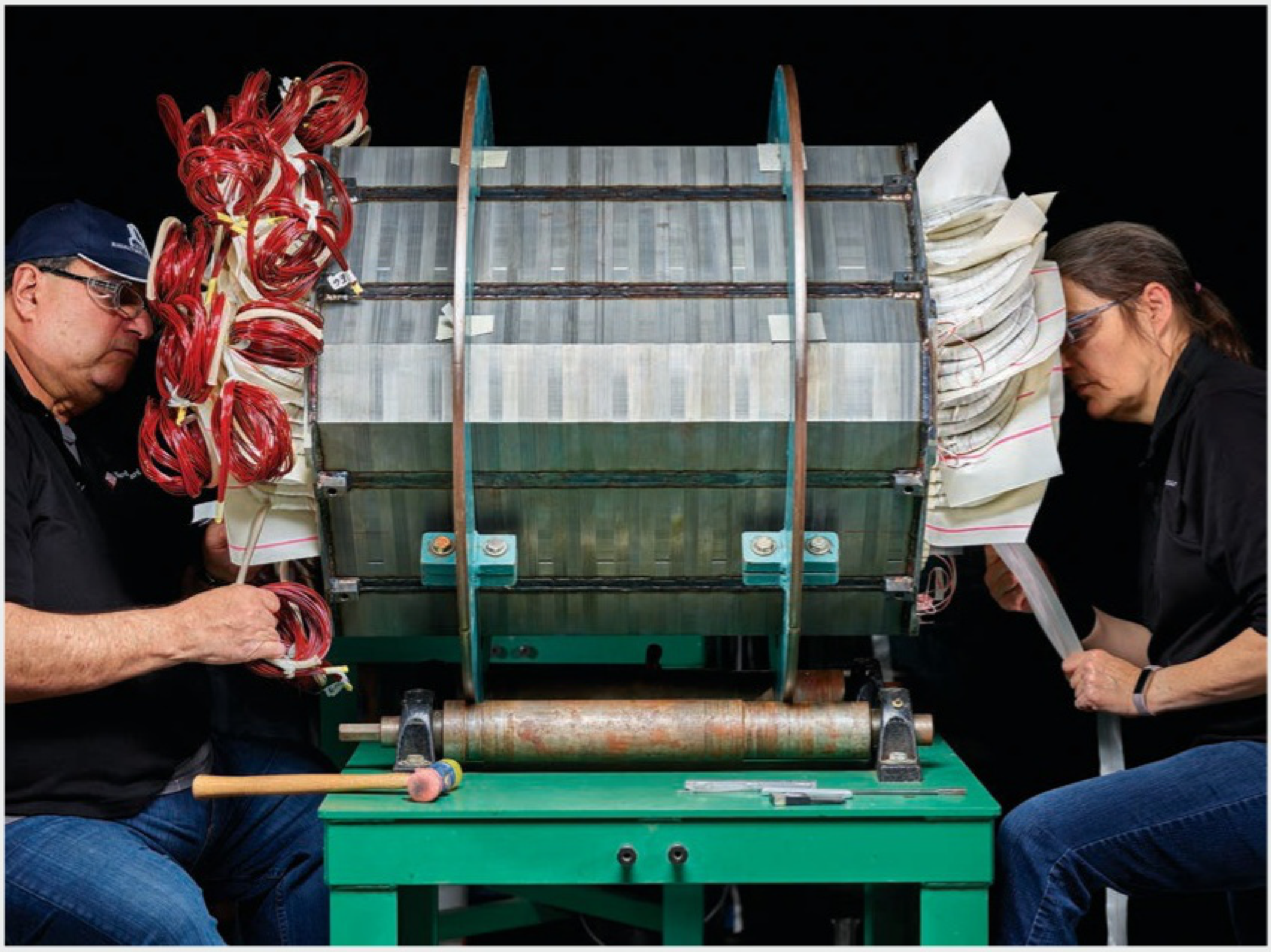
In November, the photographer Christopher Payne spent two days documenting the factory workers' efforts. American manufacturing is something of a preoccupation for Payne; in 2016, he published *Making Steinway*, "a deconstruction of the piano's unseen constituent parts and a glimpse into the skilled labor required to make them," and he is working on a forthcoming book that will collect his photographs of factories around the country. Drawing inspiration from the work of Alfred T. Palmer, the lead photographer for the Office of War Information during World War II, Payne says he aims to capture workers in a heroic light.

At Ward Leonard, Payne was taken with the contrast between the apparent disarray of the cascading coils and the orderly structure to which they would ultimately conform. "It seems chaotic," Payne says, "but it's really not—all those little wires and coils have a very specific function and a very specific place."

—Amy Weiss-Meyer

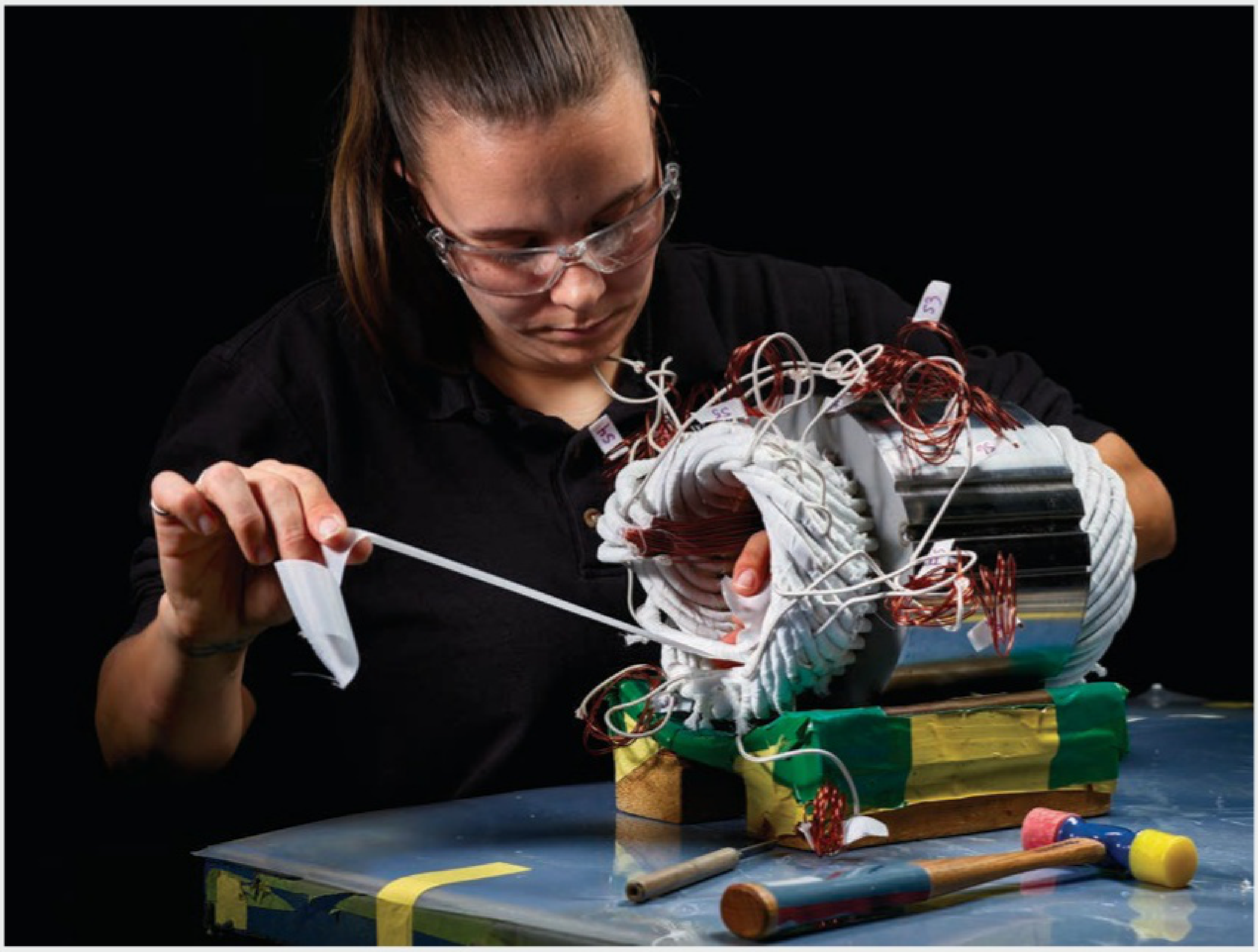
The stator generates the magnetic field of the motor. The ends of its copper coils are wrapped in tape for insulation and protection.





Making motors by hand enables a level of customization that is important to Ward Leonard customers such as the United States Navy, whose ships rely on motors that can weather harsh conditions.

This motor will eventually be immersed in a vacuum-pressurized tank of resin. The resin is absorbed into the tape, then hardened in an oven, creating a sealed insulation system.



PHOTOGRAPHS BY SERGIY BARCHUK

SOMETHING IN THE WATER

Opposition to water fluoridation, while often vocal, has been largely a fringe crusade. But solid evidence for fluoridation’s value is surprisingly hard to find.

By Charles C. Mann

I BLAME my dentists. Not for poor dental care—Barbara and Gordon do great work. I blame them for sending me into a vortex of dento-epistemological anxiety.

On a tooth-cleaning visit not long ago, Barbara told me that in the late 1970s, when she attended dental school, her professors expected that most middle-class patients would lose a lot of their teeth and need dentures by the time they were in their 60s. Today, she said, most middle-class people keep their teeth until they are 80. The main reason for this, Barbara explained, was fluoridation—the practice of putting fluoride compounds in community drinking water to combat tooth decay.

For reasons I can't now recall, I mentioned this remark on social media. The inevitable but somehow surprising response: People I did not know troubled themselves to tell me that I was an idiot, and that fluoridation was terrible. Their skepticism made an impression. I found myself staring suspiciously, as I brushed, at my Colgate toothpaste. STRENGTHENS TEETH WITH ACTIVE FLUORIDE, the label promised. A thought popped into my head: *I am now rubbing fluoride directly onto my teeth. So why is my town also dumping it into my drinking water?*

Surely applying Colgate's meticulously packaged fluoride paste directly onto my teeth, where it bonds with the surface to create a protective layer, was better than the more indirect method of pouring fluoride into reservoirs so that people drinking the water can absorb the fluoride, some of which then makes its way into their saliva.

Then I wondered: *How much fluoride is in my water, and how did public-health officials set the dose?* Fluoride in large quantities is bad news. Potential side effects, I quickly discovered, include joint pain, bone fractures, sperm decline, dementia, premature puberty, gastrointestinal distress, immune-system dysfunction, (possibly) cancer, and (also possibly) lower IQ in children. Children have smaller bodies than adults and thus are at risk of relatively greater exposure when they drink. In calculating the dose, I thought, the authorities must have taken into account the weird thirsty kid who guzzles water by the quart. But if they lower the dose to avoid harming that child, where would that leave my mother-in-law, who for some reason has decided she no longer wants to drink much water at all? Is she getting shortchanged?

Fluoridation of public water supplies is backed by every mainstream dental organization in the nation and opposed by a lot of people who spend too much time on YouTube. The most-watched anti-fluoridation video in my YouTube search results—from the series *Stuff They Don't Want You to Know*—hauls out the specter of Nazi Germany before the one-minute mark. Another video, from the series *Brainwash Update*, states categorically that "fluoride is poison." It has the high production value one associates with its sponsor, Russia Today. When I was growing up, anti-fluoridation campaigns were the province of the John Birch Society and other right-wing cranks. Now I myself seemed to have become a candidate for the tinfoil-hat brigade.

Yet the more I looked, the more I realized that fluoridation encapsulates several recurring medical dilemmas. How much trust should we give to expert judgment? How much potential harm can we expose one group to in the course of helping another? And how much evidence should be required before we allow governments to force people to do something for their own good?

MODERN DENTISTRY is a formidable example of human progress. Our grandparents' jaws used to hurt all the time. Tooth decay plagued everyone—rich and poor, famous and obscure. George Washington, an affluent planter, had lost all but one of his teeth by age 57, when he was first sworn in as president. His quest to fill his mouth led him to wear sets of dentures made from his own pulled teeth, from animal teeth (donkey and horse up top, cow on the bottom), and from other people's teeth, possibly including those of his slaves.

Washington was not alone. People on both sides of the Atlantic participated in a lively black market in cadavers' teeth. Fortunately for denture customers, Europe had a ready supply. Scavengers followed wartime armies, according to the medical historian Lindsey Fitzharris. After the shooting stopped at the battle of Waterloo, many of the dead were toothless within hours.

The widespread introduction of sugar worsened society's dental difficulties. In the first decades of the 20th century, American dentists regularly made full sets of dentures for teenagers so that they would look presentable at graduation. American soldiers were required to have a minimum number of opposing teeth: six on the top, six on the bottom. Thousands of would-be doughboys and GIs were barred from service in the First and Second World Wars for failing to meet this standard.

So dire was the state of U.S. dentition that in 1901, Frederick McKay's discovery that many of his patients' teeth were mottled with ugly brown stains generated little notice. McKay was a dentist in Colorado Springs. Intrigued, he and two colleagues examined 2,945 schoolchildren for what they called "Colorado stain." To their shock, 87.5 percent had stained teeth.

McKay contacted a famous Chicago dentist (famous in dental circles, anyway) and got him to describe the syndrome to the Colorado state dental association. Hardly anyone paid attention. Trying again, McKay and the Chicago dentist evaluated students at Colorado College, in Colorado Springs. They found that students raised in Colorado Springs had discolored teeth, whereas students from other areas had normal teeth. Hardly anyone paid attention. The two researchers then published an article, "An Investigation of Mottled Teeth: An Endemic Developmental Imperfection of the Enamel of the Teeth Heretofore Unknown in the Literature of Dentistry." *Unknown in the Literature of Dentistry!* Still, hardly anyone paid attention.

In the 1930s, McKay and others identified the staining agent: naturally occurring fluoride compounds in water supplies. (This kind of staining, along with the other negative effects of fluorine absorption by bones and ligaments, is now called fluorosis.) The researchers also discovered something else: Although the staining looked terrible, people with fluoride stains had fewer decayed and missing teeth. A small group of dentists began agitating to add low levels of fluoride to drinking water—low enough to avoid staining and also low enough to be safe.

Those dentists would soon get corporate reinforcement. Fluorine, a chemical element, is lethal in small doses and extremely reactive. Fluorides—compounds of fluorine—can be nearly as toxic but are much more stable. They are a common waste product of the fertilizer, pesticide, refrigeration, glass, steel, and aluminum industries. In the '30s, many of these industries were facing protests and lawsuits for poisoning workers, polluting the soil, and contaminating water supplies. Understandably, executives were thrilled to discover that the chemicals they had to get rid of because they could seep into city water systems might be gotten rid of by being jettisoned into city water systems. Less understandably, some later anti-fluoridation activists described the corporate embrace of fluoridation as evidence of a Communist plot.

It was more like a capitalist plot. From 1921 to 1932, the secretary of the Treasury was Andrew W. Mellon, a founder of the Aluminum Company of America, better known as Alcoa. The U.S. Public Health Service was then under the jurisdiction of the Treasury Department. In January 1931, Alcoa chemists discovered high levels of fluoride in the water in and around Bauxite, Arkansas, an Alcoa company town. By May, at Mellon's urging, a Public Health Service dentist had been assigned to examine the link between fluoride and reduced cavities. Eight years later, a biochemist at the Mellon Institute, in Pittsburgh, became the first researcher to call for the widespread fluoridation of water.

Additional impetus came during the Second World War. The Manhattan Project—the crash effort to develop the atomic bomb—processed uranium by combining it with huge amounts of fluorine to form uranium hexafluoride. Large quantities of other fluoride compounds, including the DuPont refrigerant Freon, were needed. Accidents exposed employees to these little-understood substances, killing some and sickening others. Fearing litigation, the Manhattan Project created a "medical section" to study fluorides. Together with industry, it pushed for clinical trials of fluoride's effects. Under the guise of protecting teeth, the Manhattan Project set about obtaining data on long-term fluoride exposure.

Starting in 1945, tests were conducted in Grand Rapids, Michigan, and Newburgh, New York. Both cities added fluoride to their water. In both cases, the control was a nearby city that did not add fluoride. The experiments were supposed to continue for at least a decade, with dentists in each city examining their patients to evaluate long-term effects. As it happened, one of the control cities fluoridated its water within seven years because its citizens had heard rumors about the benefits.

Fluoridation took off. So did the anti-fluoride movement, a loose coalition of Christian Scientists, Boston society ladies, chiropractors, biochemists, homeopaths, anti-Semites, and E. H. Bronner, the spiritualist soap-maker. A woman named Golda Franzen, from San Francisco, testified before Congress in the early 1950s that fluoridation was a Communist plot to turn Americans into a race of "moronic, atheistic slaves." Franzen was later convicted of violating state health laws for peddling a "cancer cure" machine consisting of a speakerless tape recorder that vibrated as it played "Smoke Gets in Your Eyes."

The opposition mostly failed. At an annual cost of about $325 million, more than 70 percent of

Americans now have fluoridated water. Still more Americans get fluoride from soft drinks, most of which are made with fluoridated water. Some bottled water is fluoridated too. In 2007, Grand Rapids, celebrating its historic role, erected a 33-foot-high powder-blue sculptural monument to fluoridation.

The fluoride revolution was not restricted to the United States. The Organization for Economic Cooperation and Development regularly surveys the progress of its 36 member nations. One variable it tracked until recently was the number of decayed, missing, or filled adult teeth in 12-year-olds, a measure of overall dental health. The top graph on the next page depicts the results—uniformly positive—for six nations that have widely adopted fluoridation.

Graphs like this help explain why the Centers for Disease Control and Prevention in 1999 called fluoridation one of the top 10 public-health advances of the 20th century. Curiously, they also help explain why fluoridation is opposed by the surprisingly durable cohort of activists who barraged me on social media. The bottom graph on the next page, based on the same OECD surveys, tracks the number of decayed, missing, or filled adult teeth in 12-year-olds from countries that have *not* embraced fluoridation in a significant way or at all.

The differences between the two graphs don't leap out at the viewer. Nonfluoridated nations such as Belgium, Luxembourg, and Denmark actually have better dental health by this measure than the United States, one of the world's fluoridation champions. Finland, Germany, Japan, the Netherlands, Sweden, and Switzerland tried fluoridation, abandoned it years later—and saw no rise in tooth decay. What's going on?

NONFLUORIDATED NATIONS SUCH AS BELGIUM, LUXEMBOURG, AND DENMARK ACTUALLY HAVE BETTER DENTAL HEALTH.

ONE OF THE lesser-known advantages of government-run health-care systems, such as Britain's National Health Service, is the fact that because taxpayers are funding everything, the government occasionally tries to determine whether the money is being spent usefully. In 1999, the government asked the NHS to "carry out an up-to-date expert scientific review of fluoride and health." A research team based at the University of York evaluated every study of fluoridation it could find—about 3,200 of them. The team's conclusion was, it said, "surprising." Despite the long fight over fluoridation, few of the thousands of studies counted as "high-quality research." The implication was that Britain had been tinkering with its water supply with little empirical support. Trevor Sheldon, the head of the York review's advisory board, was blunt: "There's really hardly any evidence" that fluoridation works, he told *Newsweek*. "And if anything there may be some evidence the other way." These findings were respectfully ignored.

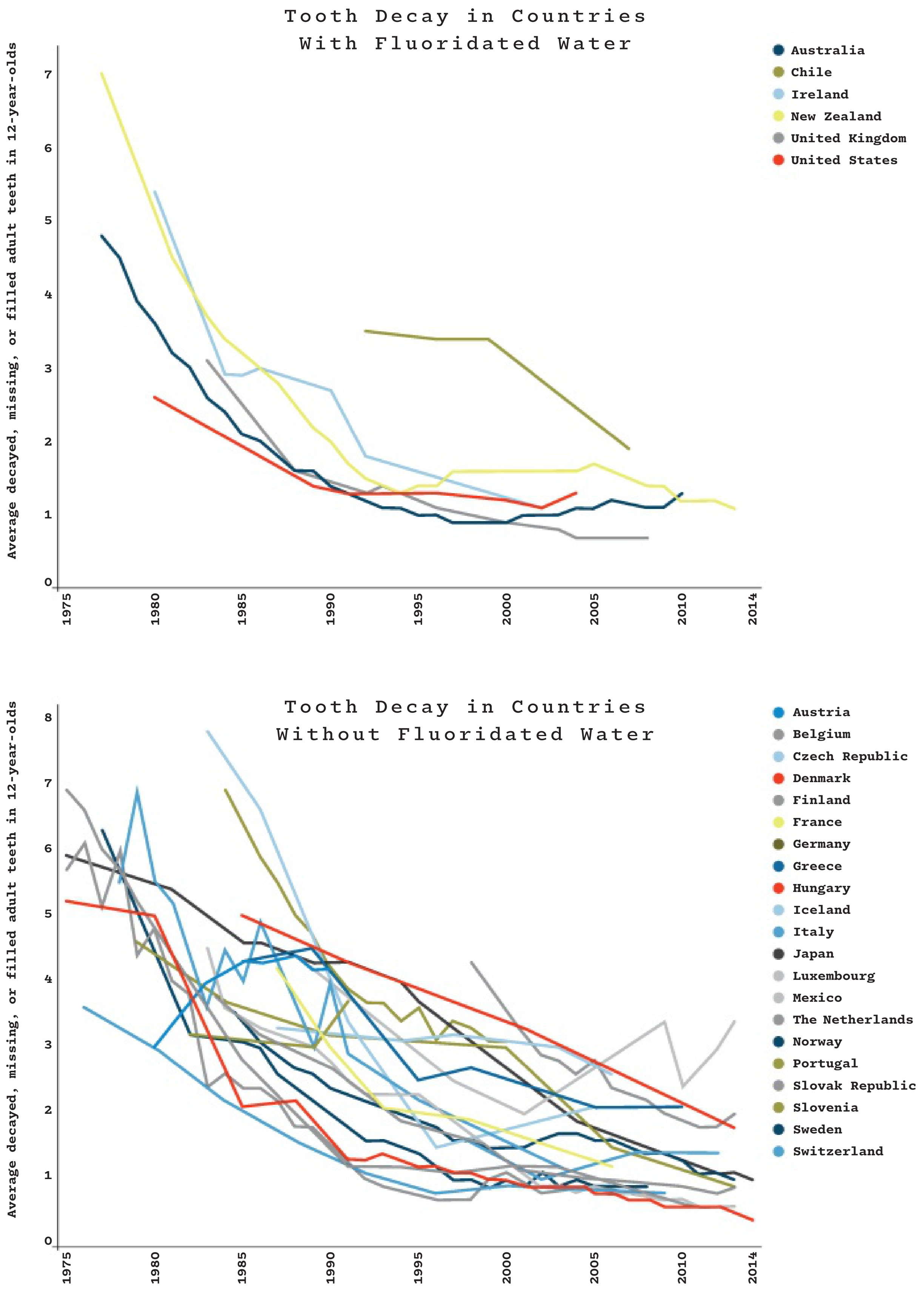
In 2015, the Cochrane organization waded into the debate. Founded in 1993, Cochrane is a London-based global network of about 30,000 medical researchers in multiple countries that provides systematic analyses of medical issues. The goal is to produce painstaking, rigorous assessments of what research has—and hasn't—established about a given subject. Cochrane has a fiercely guarded reputation for impartiality and thoroughness. Its verdicts have global impact. Which may be why the pushback on its fluoridation work was so strong.

To evaluate the efficacy of water fluoridation, the Cochrane researchers wanted to select properly conducted scientific research, discarding studies that were badly designed (too few participants to produce sound data, for example) or incompetently executed (for instance, the researchers didn't follow their own protocols). To evaluate the studies, the team used two simple but strict criteria: They needed to have two large groups of subjects, one with fluoride (the intervention group) and one without (the control group), and each group had to be examined at least two times. Moreover, the studies needed to be prospective (meaning the scientists announced beforehand what they were looking for, then measured it) as opposed to retrospective (meaning the scientists sifted through historical data looking for patterns). Scrutinizing medical databases, the Cochrane team found 4,677 fluoridation studies. All but 155 of them—20 that focused on tooth decay, and 135 that focused on dental fluorosis—failed to meet the two criteria. Worse, all of the tooth-decay studies and all but a handful of the fluorosis studies were, in the jargon, "at high risk of bias"—for example, variables such as age and income hadn't been properly taken into account.

The Grand Rapids study is an example of these problems. Not only was it cut short when the control city, Muskegon, started fluoridating its water, but the experimenters had not established whether the two populations had similar incomes or ethnic backgrounds. Nor did the researchers evaluate people's teeth blindly, by taking X-rays to be examined by technicians who did not know which group a patient belonged to. Instead the study dentists simply looked into patients' mouths and subjectively reported what they saw—a recipe for what is called "confirmation bias," in which people tend to interpret what they see in ways that reinforce their prior beliefs.

The Grand Rapids researchers cannot be much faulted for these lapses, according to the Cochrane spokesperson Anne-Marie Glenny, a researcher at the University of Manchester School of Dentistry. In the late '40s and early '50s, the proper procedures for clinical trials were just being established. Few scientists understood how small imbalances between the intervention and control groups could compromise an entire trial. And the researchers definitely cannot be blamed for the unhappy fact that their experiment—indeed, all of the original fluoride research—occurred before the introduction of Crest, the first fluoride toothpaste, in 1956. Today, given that almost all toothpaste contains fluoride, and that most people brush their teeth, assessing the impact of fluoridated water remains highly problematic.

"It's a really difficult area to evaluate," Glenny told me. "You can't really do the ideal experimental study," because it is next to impossible to assemble two large, similar groups of people, one of which is not drinking fluoridated water or brushing their teeth. On top of that, "measuring the confounders—sugar consumption, socioeconomic status, and so on—is really tricky." How much, I asked, of the improved dental health of the '60s and '70s was due to water fluoridation? How much was due to the soaring popularity of fluoride toothpaste and mouthwash? And how much was due to rising affluence, which generally translates into more visits to the dentist? "I'm not sure you can answer that question," Glenny said.



How much difference does water fluoridation make? It's hard to tell whether improvement in dental health has been caused by adding fluoride to public water systems or by better dental hygiene.

ADAPTED FROM *HARVARD PUBLIC HEALTH* MAGAZINE

The Cochrane group reported its work carefully. The evidence, it said, is poor and sparse, but what little there is "indicates" that the fluoridation of water reduces cavities in children. But, the group said, "these results are based predominantly on old studies"—from before 1975—"and may not be applicable today." For adults, there is "insufficient evidence," old or new, to determine whether fluoridation is effective. The report did not support or attack fluoridation; it only asked for more research.

Nonetheless, it set off an uproar. A blog post on the Cochrane website attracted so many vitriolic comments from anti-fluoridation zealots that the organization eventually removed it. When a writer for *Harvard Public Health* magazine used the Cochrane report to ask "Is Fluoridated Drinking Water Safe?," the heads of the American Dental Association, the American Public Health Association, the American Dental Education Association, the American Association of Public Health Dentistry, the American Association for Dental Research, and the Harvard School of Dental Medicine demanded that the article be amended or taken down. (The story included earlier versions of the two charts on this page.) Fluoride, Glenny told me, is "the only topic that I've been involved in that has created so much angst and controversy." The responses also critiqued the Cochrane report itself. The president of the American Dental Association said that it was "shaped by its unusually narrow inclusion criteria, excluding 97 percent of the more than 4,000 relevant studies that it identified." In a joint letter, the president of the American Dental Education Association and the executive directors of the American Dental Association and the American Association for Dental Research concurred, scoffing at Cochrane's "rigid inclusion criteria." But the inclusion criteria were not "unusually narrow" or "rigid"—they were based on those in a standard textbook, now in its fourth edition. The implication of the dental experts' critique seemed to be that if only statistical analysts would lower their standards, everything would look good.

THE DENTAL ESTABLISHMENT’s argument for fluoridating water in a society where a majority of people use fluoridated toothpaste and go to the dentist boils down to a contention that fluoridation will likely help people who are unable to afford good dental care. The idea is that poor children don’t brush their teeth, and fluoridation will fill the gap—a notion, incidentally, that the Cochrane team found no good evidence to support. (Last year, *JAMA Pediatrics* published a large, careful study that suggested fluoridation gave extra benefit to poor children and adolescents, but it, too, had limitations—the authors could not establish whether the different families in the study ate similar amounts of sugar, for instance.) Still, the argument runs, it is ethically acceptable to force a majority to do something potentially useless if it might benefit a minority. Unless, of course, fluoridation at current levels is unsafe in some way, and the many are harmed in pursuit of a potential benefit for the few.

Is it safe? Some fluoride perils are well documented. Over the long run, the body incorporates fluoride into bone, making it more prone to fracture, and into ligaments and joints, making them less flexible and sometimes making movement very painful. Severe cases of fluorosis are crippling; most victims are elderly. As a result, fluoridation advocates and people in government must thread a needle: enough fluoride to protect against tooth decay in children, but not enough to cause problems in the long term.

Alas, epidemiologists have been complaining about the safety studies for decades, according to Sander Greenland, an emeritus professor of epidemiology and statistics at UCLA. Greenland, who is a co-author of the standard textbook *Modern Epidemiology*, began his own fluoridation work in the ’70s by examining a “typical crap ecological study” supposedly showing that fluoride caused cancer. “But then I got into the literature, just because I wanted to do a thorough job, and I noticed there was really *no* safety information. They didn’t have any good rationale for the dose.” The current U.S. recommendation is 0.7 milligrams per liter.

Greenland went on: “Since they didn’t have any good long-term data, the precautionary approach would be ‘What’s the smallest amount we can put in [so that] we get most of the benefit and minimize the likelihood of long-term harm?’ Instead, that mentality was totally absent from the literature.” Moreover, a seemingly prudent level doesn’t account for the possibility that certain people may be extra-sensitive to fluoride’s negative effects, because they are very young or very old, or are unlucky genetically, or have nutritional deficiencies. Nor, Greenland said, would it “take into account the errors you always expect in a large-scale system, where there are accidents that put in too much, and the monitoring is not that good.”

HOW MUCH EVIDENCE SHOULD BE REQUIRED BEFORE WE ALLOW GOVERNMENTS TO FORCE PEOPLE TO DO SOMETHING FOR THEIR OWN GOOD?

Howard Pollick, an ADA spokesperson and a dental scientist at the UC San Francisco School of Dentistry, defended water fluoridation in a recent interview: “The water systems are operated by professionals. With the new equipment, they can control the fluoride level within a very narrow range.” As for general safety, he noted, “there’s a 2015 review by the U.S. Public Health Service that looked at this. I’m comfortable with it.”

Matters get more complex for less well-documented risks. In October, a research team published the results of a long-term study in Canada that correlated concentrations of fluoride in the urine of pregnant women with the IQ scores, three to four years later, of their children. The IQs of the boys (but not the girls) in fluoridated communities were, roughly speaking, one to three points lower than those of boys in nonfluoridated communities. Another long-term study, published in 2017, had found a similar effect in Mexico (where the fluoride exposure was higher than in Canada). An analysis in 2012 of 27 fluoride-IQ studies from China had also found effects on cognition (these were retrospective studies, though).

Fluoridation advocates rightly point out that the IQ studies have limitations. However, their position necessarily involves making the gymnastic argument that you should put fluoride in water because its positive effects have been shown in a bunch of mostly retrospective studies, but you should ignore the risk to IQ because the negative effects have been shown only in a bunch of mostly retrospective studies. How should one weigh the potential small harm to a broad population against the potential broad benefit to a small population? What if neither the harm nor the benefit is well established? What if constraints (moral, financial, logistical) on our ability to experiment with human beings mean that these questions can never be answered definitively?

I asked Anne-Marie Glenny whether there were other ways of reaching poor children who can’t go to dentists—training them to brush their teeth in school, for instance. Or providing free dental care in impoverished communities. She said she was unaware of any research that compared the outcomes of fluoridation with these alternatives.

Given all the uncertainties, I asked, can we really say that fluoridation works? “There’s no argument that fluoridation doesn’t work,” Glenny said. “The question is whether it is still the right way forward.”

Charles C. Mann is a contributing writer at The Atlantic. *His books include* The Wizard and the Prophet *(2018) and* 1491 *(2005).*

PREVENT WILDFIRES, FOR THE LOVE OF THE OUTDOORS.

HOW TO TACKLE

— A —

GIRAFFE

The planet's tallest animal is in far greater danger than people might think. Saving it begins with a daunting act of physical courage.

By Ed Yong

The giraffe is nearly down. Two men have stretched a thick black rope in front of the animal, to trip her up. The giraffe hits the rope, and the plan seems to be working until she gains a second wind and breaks into a fresh run. Her body sways backward and forward like a rocking horse being pulled along on a dolly. Six more people grab onto the ends of the rope, and the group runs behind her, holding tight, pitting their meager strength against her weight. It would be no contest, were her veins not coursing with tranquilizer. She loses her footing and careens forward, her legs splaying out behind her. But her seven-foot-long neck still stretches resolutely skyward. A woman leaps from behind her back, collides with her neck midair, and rugby-tackles it to the ground. People run over, carrying a hood and a drill. The giraffe—an emblem of verticality—is now fully horizontal.

The team of people who have drugged, tripped, and tackled the giraffe is a mix of scientists, veterinarians, and rangers who study giraffes in the few parts of the world where the animals still live. Giraffes are so beloved and familiar that it's tempting to think their numbers are solid and their future secure. Neither is true. Giraffe populations have decreased by 30 percent over the past three decades. Only 111,000 individuals remain. There are at least four African elephants for every giraffe. To safeguard a future for giraffes, researchers need basic information about how far they roam. GPS trackers can offer answers, but to get a tracker on a giraffe, one must first take it down.

This is harder than it sounds, and it sounds hard. Etorphine—an opioid about 1,000 times more potent than morphine—is the preferred anesthetizing agent, but some giraffes resist doses that would knock out an elephant. And unlike elephants, many of them respond by breaking into a run. Also, etorphine depresses a giraffe's breathing, reduces its heart rate, and increases its blood pressure. The drug is tolerable in the short term, but after only 15 minutes, it can cause problems for an animal whose heart must pump blood up a seven-foot neck. A darted giraffe must be tripped as quickly as possible. Once it's horizontal and restrained, the team can immediately reverse the etorphine with a second drug, while attaching a tracker.

"You want it to stand up as soon as possible," says Sara Ferguson, a vet for the Giraffe Conservation Foundation, and the woman who body-slammed the giraffe's neck. Though they look slender, giraffes are massive, sturdy animals. The head and neck alone can weigh 600 pounds—more than a large black bear. When males fight over mates, they swing their necks in long arcs to bludgeon each other with their reinforced heads. Their necks can take the impact of one airborne vet.

Until recently, giraffes have suffered from surprising scientific neglect. Few researchers have studied them in the wild, so even basic aspects of their lives remain mysterious. Perhaps that's because giraffes live in what researchers suspect are protean societies lacking the cohesiveness of elephant herds or lion prides. Whatever the reason, one of the world's most conspicuous creatures has somehow been overlooked. The same goes for its impending extinction. And without fanfare, many other major animal groups—insects, birds, and amphibians—have also declined precipitously. Quite a few of the public's favorite wild animals, including lions, cheetahs, and gorillas, are in greater peril than is widely realized. But, according to a 2018 study, this gap between rose-tinted perceptions and dire reality is greatest for giraffes. Their prevalence in the zeitgeist has masked their disappearance from the planet. In 2010, eight times as many Sophie the Giraffe teething toys were sold in France alone as there are actual remaining giraffes. In 2016, the number of Britons who watched a giraffe kick a lion in *Planet Earth II* exceeded the giraffe population by more than a hundredfold. That same year, the International Union for Conservation of Nature reclassified the giraffe as "vulnerable" to extinction. Even this grave assessment might be too optimistic: New genetic evidence suggests that the giraffe may actually be four separate species that have been evolving on their own for 1 million to 2 million years. The iconic animal faces several falls instead of one.

Ferguson and her colleagues are trying to find out how the giraffe became so endangered, and how to save it while they still have time. They're traveling across the few parts of Africa where giraffes still exist, to affix trackers to several hundred individuals. The process is exhilarating, but also dangerous—for both humans and giraffes. Julian Fennessy, the foundation's founder and director, only recently recovered from three broken ribs and a dislocated shoulder, sustained when the neck of a stumbling giraffe fell across his torso. He sometimes has to reassure tourists on safari that he is not a poacher. On occasion, his team has had to free tranquilized giraffes that got stuck in trees, or steer them away from rivers.

IMAGINE YOU ARE one of these giraffes. You are the tallest thing for miles. Everything about you defies gravity. Your hips and shoulders are level with the tops of many acacia trees, which to shorter mammals are the world's ceiling. Your head rises 19 feet into the air. As your sharp gaze sweeps over vast swaths of savannah, you see five jeeps driving toward you.

Riding in the jeeps, we head toward a group of giraffes. I'm in one of the back jeeps, standing next to two men from the Kenya Wildlife Service. We watch the animals graze quietly, using their long, prehensile, bizarrely bluish tongues to rip foliage from the trees' thorny branches. Giraffes evolved from short-necked ancestors, and whether they stretched to feed on leaves that are beyond the reach of competitors, or to swing their head with greater force during ritual combat, or to keep an eye on approaching predators, they ended up with a neck that's more than twice as long as that of any other living animal. They're tall in a way that the planet hasn't otherwise seen since the dinosaurs' reign. On Kenya's Laikipia Plateau, where the landscape is all flat-bottomed clouds and flat-topped acacia trees, they tend to stick out.

From the lead jeep, Dominic Mijele, an experienced vet from the Kenya Wildlife Service, selects a female—the one that Ferguson will later tackle—and uses a tranquilizer gun to shoot a pink-tufted dart at her. His aim is perfect. The dart embeds in the giraffe's right shoulder and delivers its etorphine payload.

Giraffe herds may have a mix of males and females or be segregated by sex. We still know strikingly little about the animals' range and behavior.

PHOTOGRAPH BY DAVIS HUBER

The female twitches nonchalantly, as if bitten by a horsefly, and returns to eating. For a few minutes, nothing happens. Then, she starts running.

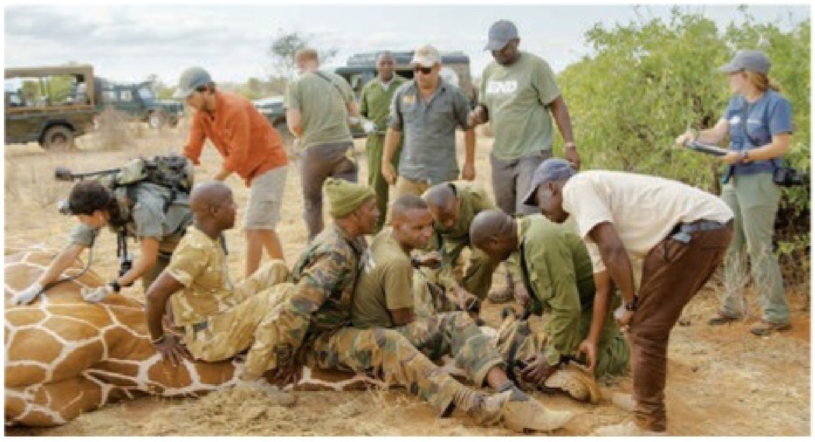
Unexpectedly, a calf runs behind her. It can't be more than two weeks old, but it was born taller than most of the people pursuing it. Its presence complicates matters, but it quickly takes itself out of the equation by crouching and hiding, flattening its neck in a most un-giraffelike way. Its mother, meanwhile, leads the jeeps on a chase.

We tear after her, swerving between the trees and occasionally bulldozing them. When the terrain allows, we leap out and sprint after her, ducking branches covered in inch-long thorns. If the giraffe falls backwards, she risks serious injury to her head and neck. Taking a page from *The Empire Strikes Back*'s playbook, the team tries to wrap ropes around her legs and guide her into a safer forward stumble.

After Ferguson brings her down, four rangers sit astride her neck like bobsledders. Someone slips a hood over the giraffe's head so she can't see. Another threads a device into a nostril to collect data on the animal's breathing. More than a dozen people surround the giraffe to measure her, collect samples of her skin and DNA, and pick off ticks, while sloshing water on her side to keep her cool. With the effects of the etorphine reversed, the animal is fully conscious, but calm. Nonetheless, everyone stays back from her long and powerful legs, which can deliver a lion-disemboweling kick.

At the giraffe's head, Fennessy kneels down and begins to attach the tracking device—a black box, no bigger than a pack of cards. Some people call it a collar, but it's not meant for the animal's neck. Nearly two decades ago, when Fennessy's team first tried tracking giraffes with GPS, it used gigantic collars adapted from those used on elephants, but the giraffes just bent their heads and slipped the devices off. It also tried fixing the collars in place with elastic straps, but feared this might restrict the animal's esophagus. Head harnesses weren't quite universal enough to fit the unique head shapes of each giraffe species, and creating one for each species was too expensive. Eventually, the team hit upon the perfect solution: Fix the tracker to a giraffe's ossicones, the pair of hornlike structures on top of the animal's head.

Giraffes hit each other with their ossicones, so these structures are thick, bony, and insensitive, with only one nerve at their base. When Fennessy drills a hole in one of them, his subject barely reacts. He threads a steel bolt through the hole, and fastens the unit in place. Once it's secure, the hood is removed, the men on the neck get off, and the giraffe lifts her head. The seven vertebrae in her neck—the same number as in a human's—are connected by ball-and-socket joints like those in our shoulders, so instead of lifting up like a rigid beam, her neck snakes upward in an almost reptilian way. She staggers up, and Fennessy slaps her on the rump to get her moving. After a few unsteady steps, she walks off. Somehow, whether through her reportedly excellent (but seldom tested) eyesight, or through low, infrasonic calls (that have long been suspected but never documented), the mother detects her hidden calf, and makes a beeline toward it.



A whole crew of scientists and veterinarians is required for the giraffe-collaring process, during which the 1,500-pound animal is kept awake and stabilized.

(TOP TO BOTTOM) 1, 2, 5: DAVIS HUBER. 3, 4: TYLER SCHIFFMAN.

When I'd arrived in Kenya, I'd assumed that the primary threat to giraffes was poaching. And people do kill giraffes, with guns, bows, and spears. They snag their legs using circular traps lined with thorns or metal shards. They strip the wires from vehicle tires to make snares that they dangle from trees or scatter on the ground. In Uganda, Ferguson desnared dozens of giraffes just last summer.

"We've swept an area and come back literally the next day to find new snares," she says. Four of the 11 giraffes the team collared in Kenya in 2017 were likely poached, "a much higher rate than anyone suspected," says Jared Stabach of the Smithsonian Conservation Biology Institute. Unlike elephants, rhinos, and pangolins, giraffes aren't poached to supply a big, illegal, international market in body parts. Instead, in countries like Kenya, people mostly kill giraffes for their meat—to feed themselves, their families, their villages. "They're a shitload of food," Fennessy says.

Poaching is only one threat among many to giraffes. It's a significant threat, it's easy to visualize, and it offers an antagonist to focus on—but there are less direct and dramatic ways of killing a giraffe.

Since the 1970s, Kenya's human population has more than quadrupled, and it is projected to double again by 2050. Livestock populations have also ballooned, and now collectively outnumber wildlife biomass by a factor of eight. Not coincidentally, wildlife numbers have declined by about 70 percent. As the human world expands, the world for wildlife contracts. Giraffes are left with few resources as more land is dedicated to agriculture and livestock. Humans' and other animals' very presence can make life harder for giraffes. They flood the landscape with loud noises, divert water for irrigation, and overgraze the land. "They chop down trees for charcoal, so there's nothing to eat," says Symon Masiaine, who leads a team called Twiga Walinzi, or "Giraffe Guards." "The livestock disturb [giraffes] from grazing. The dogs chase them." People block giraffe migration routes with fences and roads.

Growing human populations and the fragmentation of the landscape are the biggest culprits behind the decline of giraffes. David O'Connor, who researches population sustainability at San Diego Zoo Global, points out the problem on three maps. The first shows where giraffes lived in the 18th century—a broad, continuous brushstroke sweeping over much of Africa. The second shows their current whereabouts—a few pathetic splotches totaling just 10 percent of their former range. The third superimposes all of Kenya's ongoing and planned development projects onto that shrunken range, which becomes further fragmented. The pattern reminds me of the one I've been staring at for days: the islands of tawny brown on a giraffe's hide, separated by unbroken white lines. It's as if the giraffe's woes have been etched onto its skin.

"When the land is not open, it reduces the animals' ability to be flexible to change," Fennessy says. And change is certainly upon them. Kenya's temperatures are set to rise by an estimated 2 degrees Celsius by 2060. Giraffes, already confined to the driest regions that are untouched by agriculture, must now contend with shorter rainy seasons, more erratic rainfall, and more severe and prolonged droughts. Pastoralists, who once had free rein of Kenya's lands, must deal with the same challenges. Decades of decisions by British colonialists and the postcolonial government have severely restricted their lifestyle. Constrained and marginalized, they now compete with giraffes for the same dwindling resources, through the same climatic upheavals. Conflict is inevitable, and the giraffes almost always lose.

"All of these things make the animals immune-compromised and more susceptible to disease," says Maureen Kamau, a veterinary fellow with the Smithsonian Conservation Biology Institute. Giraffes across East Africa have been known to carry a mysterious skin disease that causes oozing, crusty lesions on their limbs and necks. Other species are experiencing similar problems: In Laikipia, a previously healthy population of wild dogs was all but wiped out in 2017 by a virus that spread from domestic canines.

These combined stresses are especially costly for giraffes, which reproduce only a few times in their lives, and gestate for 15 months. "Anything happens during that period and it'll lose the young one, and when it's got all these other threats, it won't breed," Fennessy says.

If animals cannot move through a fragmented world, humans may have to move them. In August 2018, people living along a particular road in northern Uganda were treated to a peculiar sight: a large green truck with shrubbery strapped to its sides, five Nubian giraffes peering out through its open roof. The driver went slowly so as not to hit any bumps. The giraffes, for their part, were remarkably calm during the 10-hour drive. "We drove past schools, and kids would flood out," Ferguson says. "It was the first time many of them had seen a giraffe, let alone five driving through their town."

Nubian giraffes are a subspecies of northern giraffe, and just 2,645 are left in the wild. More than half of those live in Murchison Falls National Park. The Uganda Wildlife Authority has relocated small groups to other protected areas, and all the populations are now growing. But this strategy has limits, because the new and growing populations are still isolated islands in a changing world. And in some countries, the giraffes have nowhere to go. Kenya's national parks and reserves cover just 8 percent of the country, and most big mammals—including almost all reticulated giraffes—live outside them. If the giraffes are to survive, they will have to do so in the presence of people.

The trick is to make the presence of giraffes more valuable to local communities than either their flesh or their absence. Consider Niger. In the mid-1990s, it was home to the last 49 West African giraffes, all of which lived outside national parks and on community-owned lands. Conservation groups supported those communities by offering loans, building wells, and providing ecotourism opportunities. Such measures, together with a strict government-enforced ban on killing, brought the West African giraffe back from the brink. Today, 600 of them graze the croplands.

In Kenya, many communities have turned their lands into conservancies—areas where livestock grazing is more carefully managed. In exchange for giving wildlife refuge, some communities receive revenue from ecotourism operators or development programs run by conservation organizations; the state-operated Kenya Wildlife Service offers veterinary support and ranger training. This model, first developed decades ago, has bloomed exponentially in the past two decades, such that community conservancies now cover more land than Kenya's national parks.

Most conservancies aren't fenced, though, and animals can easily move beyond them. "They come back with injuries," says Mijele, the vet—if they come back at all. Each conservancy is still a fragment, but some are starting to connect, creating large, continuous refuges. The famous Maasai Mara National Reserve is now surrounded by community conservancies in the northern areas that cover almost as much ground as the reserve itself. The Northern Rangelands Trust is an especially successful umbrella group of 39 conservancies that cover more than 10 million acres. Slowly, the land is being defragmented.

The collaring team hopes that its data can help. By showing where giraffes go, the team can help conservation groups prioritize areas that need the most protection. Jenna Stacy-Dawes, a research coordinator from San Diego Zoo Global, shows me a map of the privately owned area where the team has tagged giraffes. Squiggly colored lines snake across its borders, each representing a tracked giraffe. Most eventually roam outward, into community-owned lands. One yellow line heads north and abruptly ends. The giraffe's tracker stopped transmitting in June 2017, just a few weeks after it was attached.

The giraffe guards went up to investigate, and discovered that the giraffe had been poached for food near a primary school in Morijo. The team responded by organizing education days focused on giraffe conservation, starting wildlife clubs, and donating desks and textbooks—the school's first educational materials. "People there are now some of the biggest supporters of giraffes," Stacy-Dawes says. "And they're seeing that giraffes are providing for their families in other ways." The story of the giraffe's decline is not one of villainous poachers and murdered animals. It is a story of two species dealing with the same crowded, rapidly changing world. Only through coexistence will the tale have a happy ending.

THE STORY OF THE GIRAFFE'S DECLINE IS NOT ONE OF VILLAINOUS POACHERS AND MURDERED ANIMALS. IT IS A STORY OF TWO SPECIES DEALING WITH THE SAME CROWDED, RAPIDLY CHANGING WORLD.

TOWARD THE END of the collaring expedition, I ride with Steve Lenguro, a vet from the Kenya Wildlife Service. He points out a giraffe, but all I see is a tree. Then the tree turns to look at us.

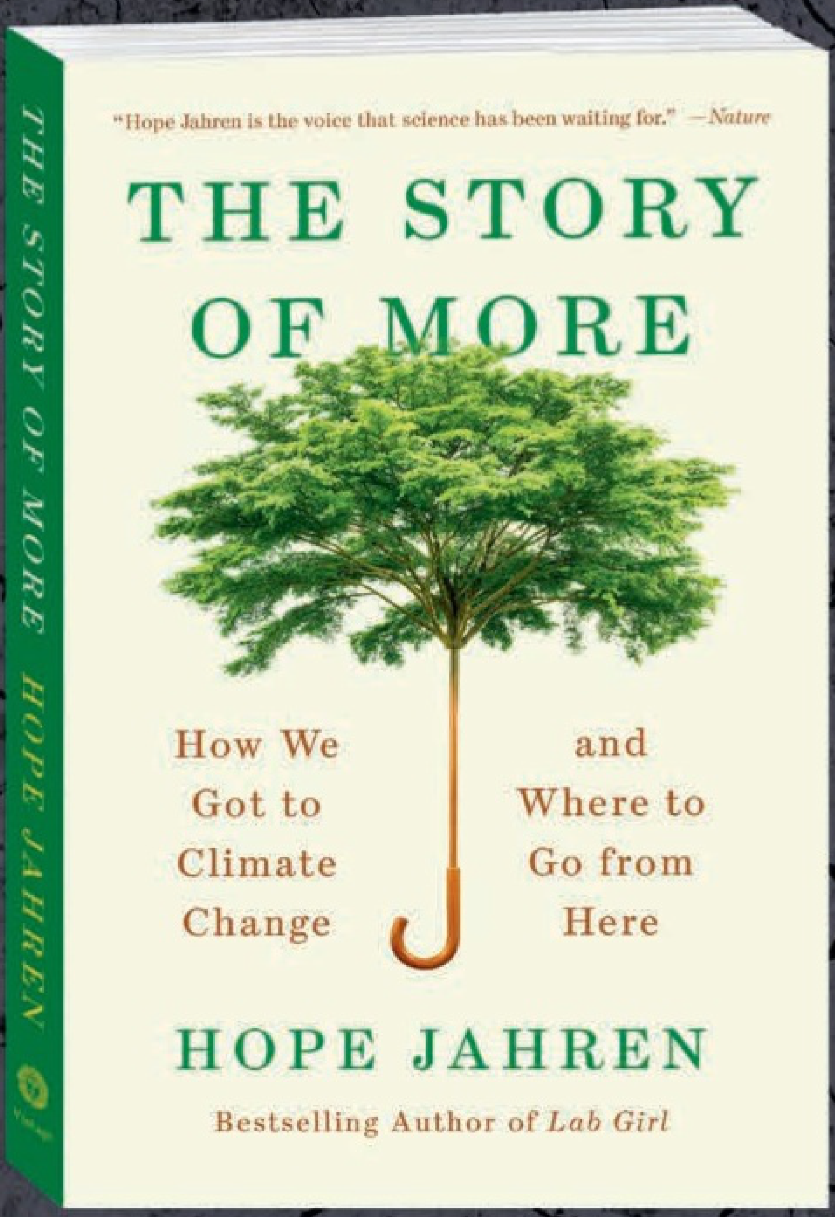
Over three days, the team fixes tracking units to seven giraffes. Every collaring is challenging in its own way. On one occasion, the tranquilizer dart doesn't fully penetrate its target, and Mijele is forced to pick a second. The darts fall off both animals, and they run into a grove of trees that are tall enough to obscure even their lofty profiles. The jeeps lose track of them, and the convoy is forced to drive through thick bush. Finally, one of the animals breaks into the distinctive etorphine-induced run, and vaults a ditch that the trucks can't pass. We get out and run again, in sweltering mid-morning heat and through thick grass. David O'Connor twists his ankle. The rangers get the giraffe down, and Fennessy yells for someone to inject the reversal drug, but it's in a jeep that became separated from the main group.

Fennessy is visibly and audibly annoyed about how long it takes for the drug to arrive. He's not pleased that some of the rangers are kneeling on the animal's neck instead of sitting on it—a position that he says places less pressure on joints and blood vessels. The Kenyan team, meanwhile, finds Fennessy's attitude patronizing. "We've done this hundreds of times before," Lenguro tells me. After some tense debriefings, egos deflate, and the team settles into a groove. It doesn't lose a single animal.

The seventh and final giraffe—a young male—doesn't even run. It takes the dart, walks 100 yards, and slumps against a tree. It looks preposterous, its body slack but supported, its neck stuck in the branches. The long thorns can't pierce its thick skin, but they probably aren't pleasant either. The etorphine is still coursing through his body, and clearly having a stronger effect than anyone anticipated. Working urgently, the team wraps a rope around the body and, with at least six people pulling, drags the giraffe to the ground. The drug is reversed, the hood goes on, and everything proceeds as planned.

Imagine what a shock it would be to be that giraffe, to come to in a posture that you haven't experienced since you dropped out of your mother and first got to your feet. Whatever was fogging your senses has cleared, but your eyes are still covered. You lash out with a hoof, connecting with nothing but air. A loud drilling noise rumbles through your skull, and you lash out again. Your vision returns. You lift your head, snake your neck upward, and rise to your proper place—upright, aloft, above all things.

Ed Yong is a staff writer at The Atlantic.


"Hope Jahren is the voice that science has been waiting for." —Nature
THE STORY OF MORE
How We Got to Climate Change
and Where to Go from Here
HOPE JAHREN
Bestselling Author of Lab Girl
THE STORY OF MORE HOPE JAHREN

An engaging and thoughtful missive on the defining issue of our time

from the bestselling author of *Lab Girl*

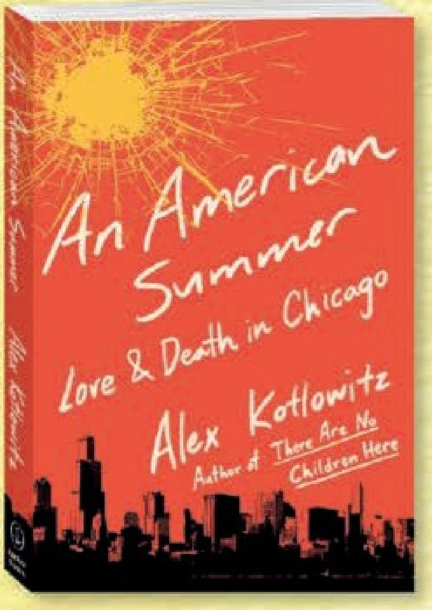
"Hope Jahren is the voice that science has been waiting for." —*Nature*

"Thoughtful, informative, and–above all–essential."
—Elizabeth Kolbert, author of *The Sixth Extinction*

"Captivating and compelling. She urges readers to be courageous dealing with global environmental changes and human population growth."
—Dudley Herschbach, Nobel Prize–winning chemist

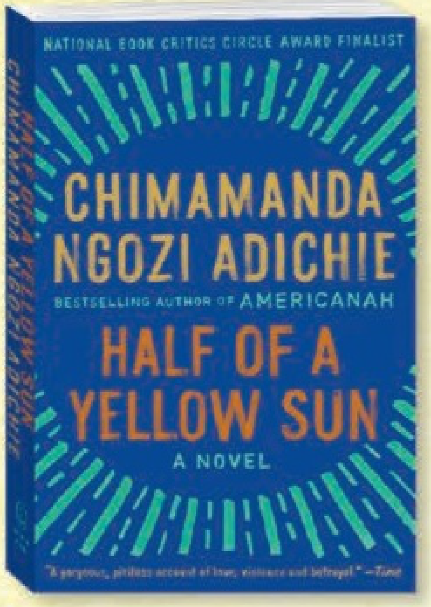
New in Paperback and eBook **Vintage Books**

POWERFUL, IMPORTANT, AND EXTRAORDINARY READING IN PAPERBACK


An American Summer
Love & Death in Chicago
Alex Kotlowitz
Author of There Are No Children Here

From the bestselling author of
There Are No Children Here

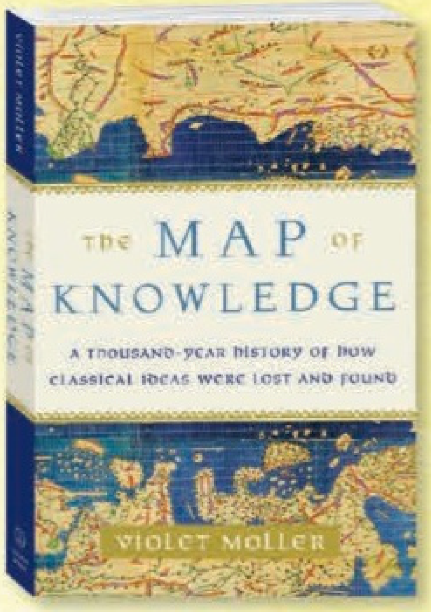
"Unforgettable.... A powerful indictment of a city and a nation that have failed to protect their most vulnerable residents."
—Eric Klinenberg, *The New York Times Book Review*


NATIONAL BOOK CRITICS CIRCLE AWARD FINALIST
CHIMAMANDA NGOZI ADICHIE
BESTSELLING AUTHOR OF AMERICANAH
HALF OF A YELLOW SUN
A NOVEL

Winner of the Orange Prize
National Book Critics Circle Award Finalist

Bestselling author of *Americanah*
and *We Should All Be Feminists*

"Ingenious.... Adichie has created an extraordinary book." —*Los Angeles Times*


The MAP of KNOWLEDGE
A THOUSAND-YEAR HISTORY OF HOW CLASSICAL IDEAS WERE LOST AND FOUND
VIOLET MOLLER

"As delightful as it is readable.... Moller brings to life the ways in which knowledge reached us from antiquity to the present day." —Peter Frankopan, author of *The Silk Roads*

Now in paperback and eBook

VINTAGE Read excerpts, author interviews, and more at VintageAnchor.com **ANCHOR**

Coors
LIGHT

By **RACHEL MONROE**

WHAT HAPPENED TO

Illustrations by **HOKYOUNG KIM**

JAKE MILLISON?

WHEN A YOUNG RANCHER WENT MISSING, HIS FAMILY SAID HE'D SKIPPED TOWN. BUT HIS FRIENDS KNEW HIM BETTER THAN THAT, AND THEY REFUSED TO LET HIM SIMPLY DISAPPEAR.

IT WAS WEIRD THAT NO ONE HAD HEARD FROM JAKE MILLISON IN A FEW DAYS.

Maybe someone who didn't know him, an outsider to Gunnison, a small Colorado town on the western slope of the Rockies, might assume he was flaky or unreliable. At 29, Jake still lived with his mom and spent most nights at the local dive bar, the Alamo. But Jake's friends knew he was deliberate, a creature of routine. If you had plans to go to the movies on Saturday, he'd text you on Wednesday: *What time should I pick you up?* And then again on Thursday and Friday just to confirm. On a motorcycle trip to California, Jake was the one who brought tarps and first-aid kits. He definitely wasn't the fall-off-the-face-of-the-Earth type.

Jake had spent most of his life on the 7-11 Ranch, his family's property just outside Gunnison. He'd drive into town most evenings, work out at the gym, then stop by the Alamo. He always sat at the same table and always ordered the same drink: a Coke, because anything stronger made him nervous. His friends, a close-knit group of half a dozen guys, would show up after their shifts at the mechanic shop or the lumberyard. They'd shoot pool for a couple of hours, then Jake would head home to the ranch. "Everything was like clockwork with him," his friend Antranik Ajarian told me.

On Wednesday, May 20, 2015—five days since anyone had heard from Jake—his friends Nate Lopez and Randy Martinez drove out to the 7-11 Ranch. They turned into the driveway, then drove past the barn decorated with the antlers of deer, elk, and moose, testaments to the property's glory days as a hunting camp. They didn't see Jake, although they did spy his truck, his motorcycles, and his dog, Elmo.

In the horse corral, they spotted Jake's mother, Deb, a wiry woman whose frail frame belied her stubborn strength. Deb told Lopez and Martinez that Jake had gone to Reno, Nevada, to train at a mixed-martial-arts gym; he wasn't responding to their texts because he'd dropped his phone in an irrigation ditch and left it behind to dry out in a bag of rice. Her explanation was logical enough. But the more they thought about it, the more it didn't sit right with them.

Another few days passed, and still no word from Jake. His friends called and stopped by the ranch. They weren't sure what else to do. *I'll let you know when he's back*, Deb would say. Were they paranoid, or did she seem annoyed to see them? The situation felt weird, they kept saying to one another. It just felt weird.

After about a week, a Gunnison County patrol sergeant named Mark Mykol, alerted to Jake's sudden disappearance, called the ranch. Deb said her son had taken off with a friend whose name she didn't know. She thought they were headed to Reno to go camping. He did this sometimes, just up and vanished, and she seemed less worried than irritated. Mykol marked the case status as "unfounded"—nothing to see here. But Jake's friends kept insisting that something was wrong. A week later, Mykol called the ranch again. This time, Deb admitted that she and her son had been arguing; he was almost 30 and still living at home, after all. He'd grabbed some camping equipment, a gun, and a wad of cash, then gotten into a car with someone she didn't recognize. She figured he was in Nevada looking for work, or in California with friends, or in New Mexico with his father; she'd stopped trying to keep tabs on him.

But Deb's story only left Jake's friends more confused. It was as if she were talking about an entirely different person from the Jake they knew.

IN THE SKI MECCA of Crested Butte, the median price for a house is $750,000; Gunnison is its more rugged, affordable neighbor 30 miles south, a windswept town of hunting outfitters and craft breweries, and the home of Western Colorado University (motto: "Learning, elevated"). Gunnison's 6,500 inhabitants are an eclectic mix of hippies, hunters, college kids, ranchers, and professional mountain bikers. At the Trader's Rendezvous, you can pick up an antique rifle or a taxidermied wildebeest; a few blocks down the street is Shamans Corner, a combination massage parlor, tattooist, and metaphysical gift shop.

When I visited Gunnison in November 2018, the big news was a local ranch's cattle relocation: "Cows will be walking down HWY 135 … between 9-noonish," the Gunnison Regional 911 Center's Facebook page warned. "With the snow please be safe and budget a few extra minutes as the girls make fast retreat down valley. Thanks for the patience."

Jake's parents split up when he was 6 and his sister, Stephaine, was 7. His father, Ray, whom Ajarian described as "an old crazy gun guy" (he meant this as a compliment), eventually moved to rural New Mexico. Deb got remarried, to Rudy Rudibaugh, a widowed rancher two decades her senior. When I stopped by Trader's Rendezvous, everyone had a story about Rudy. He was a "tough little turd," as one man put it, who had served as a frogman in World War II, lurking in rice paddies and breathing through a straw as he stalked the enemy. After the war, Rudy bought the 7-11 Ranch and based a successful hunting business there.

Rudy was known for doing things his own way. In the precellphone era, he used carrier pigeons to send messages between hunting camps. When Jake and Steph were little, Rudy and Deb bought an African lion cub; they kept it chained in the horse corral and fed it a diet of roadkill. Neighbors complained that it frightened the livestock; eventually somebody shot and killed it from the highway—the Gunnison County equivalent of a drive-by shooting.

Jake and Stephaine were homeschooled by Deb, in part so they could help out on the ranch. There was always plenty of work on the 700 acres: branding calves, baling hay, repairing tractors, leading hunting trips, caring for the horses. As Rudy got older, he had a harder time keeping up—and Jake was expected to pick up the slack. The family was often the last to finish putting up their hay for the season, because Rudy and Jake handled all the work themselves, Jake's friend and former neighbor Adam Katheiser told me. And when Rudy was no longer able, it was just Jake.

As a teenager, Jake began attending public school for the first time. Early on, he got in trouble for the rifle in the back of his truck; he hadn't realized you weren't supposed to bring firearms to school. After spending much of his youth isolated on the ranch, Jake began to amass a group of friends. He and Ajarian, both introverts, found it easy to be quiet around each other. Their crew grew to include other guys with similarly low-key temperaments. They went camping, fiddled with their motorcycles, and made fun of one another for all the project vehicles that never quite got all the way fixed.

After high school, Jake stayed at the ranch while most of the crew rented apartments in town. Jake could be standoffish with strangers, but he was inseparable from his friends. He seemed to have a boundless—occasionally exhausting—appetite for hanging out. He could be a know-it-all, and if he thought you were doing something stupid, he wouldn't hesitate to tell you so. His friends sometimes rolled their eyes, but they appreciated that they always knew where they stood with him. "We used to say, 'Yeah he's an asshole, but he's our asshole,'" Ajarian said.

Jake was 23 when Rudy died, in 2009. Stephaine had already received an inheritance of $30,000. Jake didn't get any money; the assumption was that he and his stepbrother, Shane—Rudy's son from his first marriage, who lived in Texas—would eventually inherit the ranch. Now the full burden of maintaining the property fell on Jake's shoulders. If he thought about shirking his obligations, he never did. "Gunnison ranchers don't move away," Jake's friend Tom Page told me. Jake was tied to the land, to his family—and to a dying way of life.

THOUGH THE MYTHOLOGY of the American rancher looms large in our national imagination, economic pressures and climate change have made small-scale ranching ever more precarious. Since 2000, the Colorado River Basin has suffered an unprecedented period of drought, and low commodity prices and the rising cost of living haven't helped matters. The suicide rate in Gunnison and other rural Colorado counties is more than twice the national average.

Faced with a deficit of water, Colorado's booming cities have turned to a "buy and dry" policy, in which farmers agree to let their land lie fallow and lease their water rights to thirsty urban areas hundreds of miles away. By the time Jake took charge of the family ranch, the gulf between rural and urban Colorado was vast: the agricultural land of the Rockies' western slope lying uncultivated and slowly drying up, while in Denver so many new buildings were being erected that there was a waiting list to rent a crane.

Ranch life was becoming the purview of wealthy hobbyists who could afford to indulge in cowboy fantasies. In Gunnison County, not far from the 7-11 Ranch, the billionaire businessman Bill Koch built his own private replica of an Old West town, complete with a saloon, church, jail, and train station; the property's 21,000-square-foot mansion is stocked with memorabilia, including firearms that belonged to Jesse James and Sitting Bull.

News accounts would later refer to 7-11 as a "$3 million ranch," but when Jake disappeared, "it was kind of a junkyard," Lopez told me. Jake lived in the lodge, a building that had been intended for big gatherings and camp suppers; now it was so cluttered with Deb and Rudy's collections—stuffed rattlesnakes, old bits and bridles, ancient guns, antique machines with unclear uses—that it barely had enough room for his bed.

Jake once asked Katheiser to help brand calves. Katheiser had helped friends out before, and knew that typically a calf was herded into a mechanical chute, where a clamp closed around the animal's neck, immobilizing it and then flipping it on its side. Katheiser was surprised to see that the 7-11 Ranch had no such equipment. It was a day of rough, physical work—snagging the calves with a rope, wrestling them to the ground, then holding them down to be branded. The corral itself needed maintenance. But Jake could never get to it, "because the fences need fixing, the truck needs fixing, and we've got to brand all these cows *now*," Katheiser said.

Faced with more than they could handle, the family sold off much of their livestock and stopped hosting hunting trips. Money became a source of tension between Deb and her son. Jake didn't receive a paycheck for the hours he put in at the ranch; his eventual inheritance of the property was supposed to be payment enough. In the meantime, if he wanted to go to the movies or the Alamo, he'd have to ask Deb for cash.

Frustrated, Jake found other ways to scrounge up money. He cut and sold firewood. He worked part-time for a landscaping company. He came up with a scheme to grow marijuana to sell to college students, which his friends found hilarious: *Dude, you don't smoke weed—how are you going to test your product?* He cultivated psychedelic mushrooms and looked into starting a chimney-sweeping business.

One summer, Jake made good money working on a commercial fishing boat in Alaska—but when he returned home, he ended up giving Deb $15,000 to help keep the ranch afloat. "He was always pissed off about that," Ajarian told me. "He always said he should've just said *Fuck the ranch* and kept it." But while Jake may have talked about the property as if it were an anchor dragging him down, he was unwilling to walk away. What if the ranch was a once-in-a-lifetime opportunity? What if he could restore it to greatness?

However much Jake worked, it wasn't enough for his mother. If the ranch wasn't thriving the way it had under Rudy, it wasn't due to the drought or the economy or any of the other forces that plagued ranchers across the western states. The problem was that her son wasn't trying hard enough. She complained that he slept too late and left jobs unfinished. "Whenever you were out there," Ajarian said, "they'd be at each other's throats."

When Jake vanished, some of his friends hoped that he'd finally reached his limit and taken off: *Fine, you guys deal with this place*. It was nice to imagine him somewhere sunny, California maybe, free to do as he pleased. But that daydream never quite felt plausible. Maybe he would’ve abandoned his family, Jake’s friends thought, but he never would’ve abandoned *them*.

IN JUNE, JAKE’S FRIEND Max Matheny and his sister, Molly, met with Mykol at the sheriff’s-department headquarters. Molly had called Ray, Jake’s dad; he said he hadn’t heard from his son in weeks, and suggested that she file a missing-person report.

Mykol didn’t think that was necessary. Everything Deb had said had checked out so far: It seemed that Jake had just taken off. But the sheriff’s office did reopen the case, and alerted law enforcement in Reno to be on the lookout for Jake.

Ajarian, too, says he tried to file a missing-person report. The sheriff’s department, Ajarian told me, “kept saying the family doesn’t want it.” Several of Jake’s friends said they were told that only family members could file such reports, although according to Colorado law “any person with relevant, credible information suggesting that a person is missing may make a missing person report to a law enforcement agency.”

Nate Lopez spent “a lot of time” talking with local law enforcement. “They just told me that the only people they can really believe is the family. If they say that Jake went on a trip, and they’re the last people to see him, that’s what you have to go by until there’s evidence that shows otherwise,” Lopez told me.

Jake’s friends refused to let the matter go. Steph messaged one of her brother’s friends—“do you have any idea who keeps reporting jake missing? I would really like [if they] could just call mom instead,” she wrote. But Jake’s friends called the ranch so often that the sheriff told them to knock it off.

It was dismaying, if not surprising, that law enforcement seemed slow to wonder whether Jake Millison had been the victim of a crime. Most murder victims in the U.S. are male—typically young men of color—but you wouldn’t know that from watching TV, where the victims who get the most airtime tend to be young, attractive white women. As a culture, we’re not as attuned to young men’s vulnerability to violence.

While law enforcement seemed to accept Jake’s family’s story, his friends found themselves bumping up against an uncomfortable possibility: that one of his family members was complicit in his disappearance.

Three years before Jake went missing, Steph, who had been living in Denver, moved back to Gunnison with her husband and son. She earned money taking tourists on horseback rides, and dreamed of giving her son a country upbringing—crisp mountain mornings; lying in the tall grass, aiming a rifle at soda cans. Though Steph described herself as “not good with backhoe things,” she was a skilled horsewoman who identified as a country girl.

Despite their shared upbringing, Steph and Jake never got along. “Yes hes mellow with his friends but with family he is a complete dick most of the time,” Steph texted a friend around the time she moved back to Gunnison. Jake made it clear he was unhappy that his sister was back in town. Steph had already used her inheritance to put a down payment on her house in Denver; now he worried she was trying to stake a claim on the ranch, too.

Steph and Jake had worked out a kind of sibling détente, which is to say that they mostly avoided each other. But things were different with Steph’s husband, Dave. Where Jake was reserved, Dave was cocky. Everything about him seemed to grate on Jake, including Dave’s car—a white Ford station wagon with flames painted on it. Jake’s friends say his annoyance was undergirded with fear; he saw Dave as unpredictable, potentially violent. He made awkward half-jokes about keeping a gun nearby in case Dave attacked him.

Jake began training at a jiu-jitsu gym in Gunnison. He took to it right away; the tactics and technicalities and focus on self-mastery suited his temperament. “*Jiu-jitsu* translates as ‘gentle art,’ ” Page, who trained at the same gym, told me. “There’s no striking—it’s all about distance management, leverage, control. It’s like playing chess with the human body.” Jake had always been chubby and withdrawn; jiu-jitsu helped him grow more comfortable in his body, more used to asserting himself.

JAKE’S FRIENDS FOUND THEMSELVES BUMPING UP AGAINST AN UNCOMFORTABLE POSSIBILITY: THAT HIS FAMILY WAS COMPLICIT IN HIS DISAPPEARANCE.

Jiu-jitsu emphasizes personal development in all areas of life, and Jake became preoccupied with bettering himself. He adopted a strict diet and chided his friends when they ate at Taco Bell. He chugged a gallon of water a day for a few weeks, briefly convinced that hydration was the secret to health. His mania for improvement extended to the ranch, which he periodically tried to clean up, whether his mother liked it or not. He told Ajarian he was bringing junk into town on the sly and tossing it into Dumpsters.

With Dave and Steph back on the ranch, things could get heated. One day, Jake plowed snow into huge banks that blocked Dave’s car; in the argument that ensued, Dave took off his jacket, revealing a gun. (Dave later claimed that he was planning to set the gun aside so they could fight with their fists.) That afternoon, Jake filed for an order of protection against his brother-in-law. Had it gone into effect, it would have essentially banned Dave from the ranch. Jake withdrew his complaint a few days later, but the animosity between the two men remained so strong that Deb declared they couldn’t be on the property at the same time.

Steph was furious when she and Dave had to move to an apartment in town. “My younger brother is trying to ruin my life,” she wrote on the website Moms.com in 2014. “How can I make [my mom] see that it is unhealthy for him to be there controlling her and her property like he owns it?”

By the following year, Deb seemed to have taken her daughter’s advice. “My mom might be kicking my brother out soon,” Steph messaged a friend on Wednesday, May 13. That Friday night was the last time anyone saw Jake. A few days after that, Steph posted on Facebook: “Have you ever been woken up with such awesome news you wanted to run outside screaming?”

"No more jake????" a friend replied.

"Apparently Reno," Steph wrote. "Long story tell you soon."

AS THE WEEKS TICKED BY, Jake's friends grew more and more frustrated. No one seemed to be treating Jake's absence as the emergency they felt it was. Steph and Dave moved back to the 7-11 Ranch and were acting like nothing was wrong. If the sheriff's own son had vanished, Ajarian couldn't help thinking, the deputies would certainly be doing more than they were. Finally, the friends decided they couldn't rely on official channels for help.

Ajarian was in the hardware-store parking lot when he spotted the first significant clue: Jake's beloved 1976 Harley Sportster, albeit with a new, slapdash paint job and a modified gas tank. Dave was riding it. "If Jake ever saw Dave Jackson *breathing* on his motorcycle, it would've been the end of the world," Ajarian told me. "And this guy is riding around on it. And why is it spray-painted all these shitty different colors?"

Two other friends were shopping for used bikes when they discovered a couple more of Jake's motorcycles for sale in a local shop. They obtained a copy of the title to one, a Honda, which had both Jake's and Deb's signatures on it. To Ajarian's eye, Jake's looked like a blatant forgery. "You could see Deb's signature and you could see Jake's signature underneath it, and it's the same fricking handwriting," he said. To Jake's friends, these motorcycle clues were a blatant sign that Deb's story didn't make sense. If Jake's family expected him to return, why were they selling his stuff?

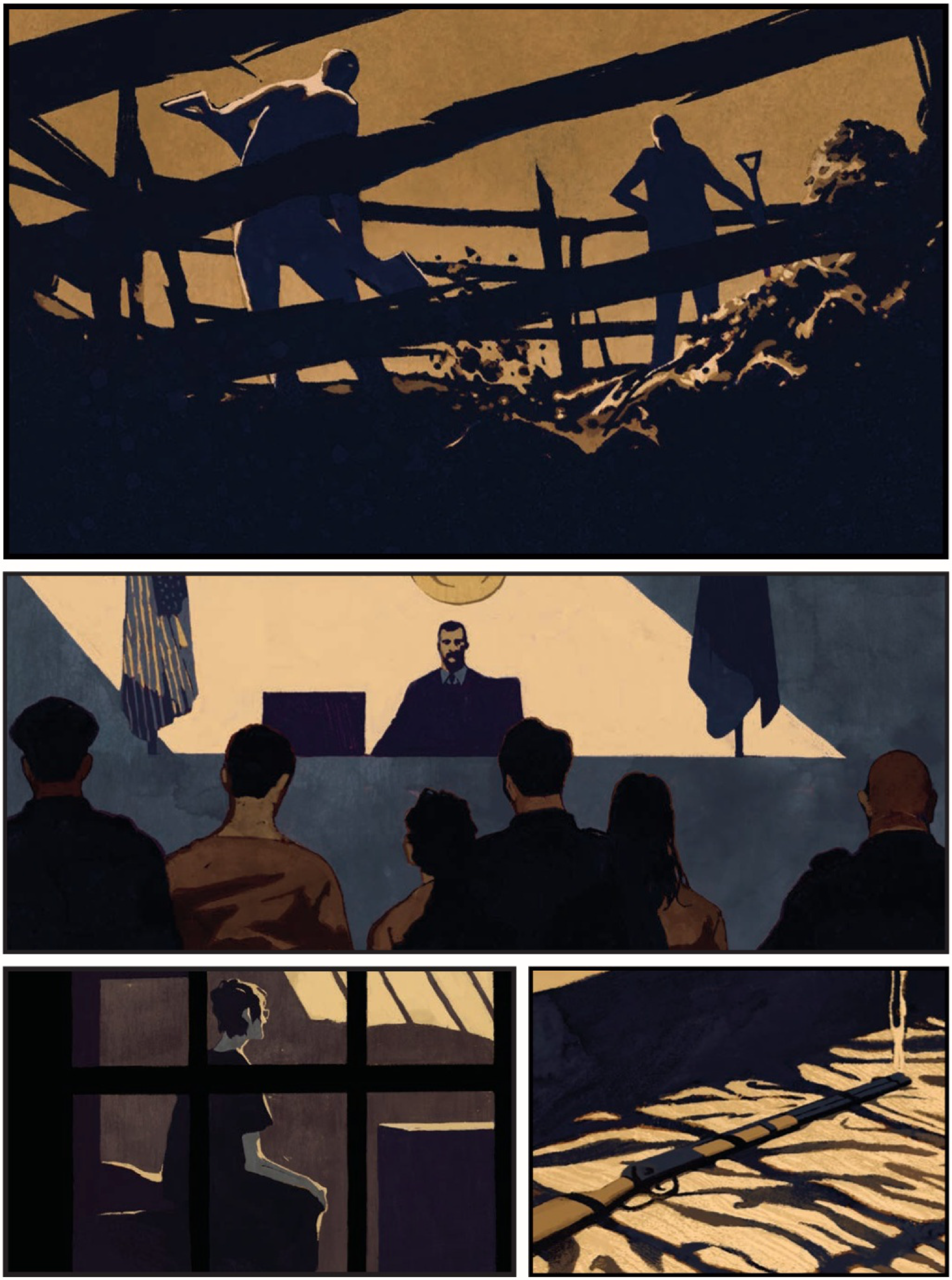
One day, Ajarian ran into Deb at the grocery store. He barraged her with questions: Where was Jake? And if she didn't know, why hadn't she filed a missing-person report? She muttered something about not wanting to get in trouble for filing a false report if Jake turned up.

Finally, three months after Jake was last seen, Deb Rudibaugh officially reported her son missing, claiming that his interest in martial arts had brought him into contact with a bad crowd. "I figure he got in over his head with something and is either in witness protection or in hiding or dead," she later told investigators.

Ajarian created a Facebook page called "Where is Jake Millison." He posted photos from their motorcycle trip out West—Jake posing next to a giant redwood; Jake wearing a helmet, making goofy faces—and asked people to share any information that might be useful. Someone reported seeing Deb, Steph, and Dave burning Jake's mattress days after he vanished. Someone else pointed out that shortly after Jake disappeared, Dave had changed his Facebook profile picture; in the new photo, he was posed on one of Jake's motorcycles—another thing Jake never would have tolerated. The tips that came in to the Facebook group were shared with law enforcement. The accumulation of facts, plus Jake's friends' persistence, began to convince the department "that this was a serious matter here," Mykol said.

Winter brought "bad times" out at the 7-11 Ranch, Dave texted a friend. With Jake gone, much of the work fell to him. "I'm sick of being a slave for [Steph] and her mother on this ranch while she is in the lodge warm cozy f****** around on her phone," he wrote. When he threatened to leave, Steph brandished a gun and fired a bullet at the floor. Around the same time, Deb's health began to deteriorate. Within a year, she was admitted to the hospital for a collapsed lung; a biopsy revealed that she had Stage 4 breast cancer.

Despite Jake's friends' attempts to keep the investigation energized, months passed without much development. A year went by, and then another. Ajarian was alarmed to realize that he'd gotten used to Jake being gone. He and his friends sometimes joked about a gray-haired Jake popping up in 50 years, cackling about the epic prank he'd played on them, but the unspoken truth was that they all assumed he was dead. Not knowing why or how, or where his body was, was maddening. There had been no funeral where they could make speeches about how much he'd mattered to them and cry together for his loss. His family continued to live as if he'd never existed. With no official action, it was hard not to feel as though Jake's disappearance—and his life—didn't matter.



The friend group slowly began to disperse: Lopez moved to Texas; Katheiser was in Colorado Springs. Sometimes Ajarian thought of Jake almost as a ghost—there and not there at the same time.

Although the investigation stalled for years, the Gunnison County sheriff's department disputes the idea that it didn't take Jake's friends' concerns seriously. "We were working pretty hard," Mykol told me. "It just takes a really long time. You can't just show up somewhere and search—there's a thing called the Fourth Amendment, you know what I mean?" Mykol also pointed out that the department had only one investigator for the entire county.

Finally, the sheriff's department asked the Colorado Bureau of Investigation for help on the case. Two years after Jake's disappearance, Ajarian met with a CBI agent who told him they were making progress. "She said, 'I can't tell you anything—but things are in the works for you guys.' "

On July 17, 2017, official vehicles crowded the county highway by the 7-11 Ranch. As ambulances and fire trucks waited, search teams and dogs spread out over the 700 acres. "Later on that day there are reports that they've found a body, and you just know," Katheiser recalled. "There's not another reason for a body to be out there."

The news spread fast across the small town. While Jake's friends had been calling the sheriff, visiting the ranch, posting on Facebook—for nearly all of that time, his body had been wrapped in a tarp and buried in a manure pile in the corral.

THE FACT THAT Jake's body was found on the 7-11 Ranch seemed to confirm that at least one member of his family had played a role in his death. But which one? There were almost too many potential motives: Steph's lifetime of animosity toward her brother, plus the tension over who would inherit the ranch; the constant clashes between Deb and her son. And then, of course, there was Dave. In the weeks before he vanished, Jake had told friends that if anything ever happened to him, Dave would be responsible.

Investigators questioned Deb, Steph, and Dave separately many times. Their stories were contradictory, confusing, and self-serving. Everyone agreed that Jake had once been his mother's favorite, but that in the years before his death, the dynamics in the family had shifted; Deb began complaining to Steph about Jake, and Steph was happy to egg her on. As Deb told investigators, Steph was insistent that her mother evict Jake. He was a freeloader, she argued. Without tough love, he'd never become independent. Sometimes she hinted that more drastic measures might be necessary. "The only way that he's going to leave here voluntarily," Deb claimed Steph had said, "is if he's in a body bag."

Steph's efforts at persuasion seemed to work. Investigators found an amended version of Deb's will, dated three weeks before Jake vanished. Instead of leaving the ranch to Jake and Shane, the property—and everything else she owned—would now go to Steph. Jake would get nothing.

Deb told investigators that the week Jake went missing, she had been exhausted from working the night shift at a nursing home. She'd asked Jake to take care of an errand; he'd left the job half finished, then gone into town. This, she said, was the last straw. She waited until he fell asleep that night and shot him in the head. She claimed that she disposed of his body on her own. The investigators pressed her on this point. How was this possible, considering how small and frail she was? "Yankee ingenuity," Deb said. She had rolled his body in a plastic sheet, then used tow straps and a winch to maneuver it out of the lodge and onto an ATV. She insisted that Steph and Dave had known nothing.

When investigators told Steph that her mother had confessed to murdering Jake, she broke down. "Oh my God," she said, sobbing. "Are you fucking serious? I can't breathe."

But the officers suspected that she knew more than she was letting on. There was that Facebook post about "awesome news" once Jake was gone, and her apparent lack of concern for her brother. They kept pressing her.

"Okay," Steph said eventually. "Honestly I didn't know anything until a couple months ago." Dave had been digging in the manure pile when he'd uncovered the body of what looked at first like a large animal, she said. It was partially mummified, and wrapped in plastic. Dave had encountered plenty of carcasses while living on the ranch, but this one unnerved him. He could see parts of a rib cage poking out. He'd called Steph over. "Is that what you think it is?" he asked.

"Maybe," Steph replied. "I'm going to call Mom."

Deb told her daughter to stay away from the body, Steph said, claiming that it was a mountain lion or a bear Jake had shot. "It's illegal game; that's all I'm going to say," Deb said. She told her daughter to cover it back up with manure and leave it alone.

In the ensuing weeks, Steph and Dave made awkward jokes about what they'd found. They said they talked about calling the police but never did. Then the investigation ramped up again. With officers sniffing around the ranch, Steph insisted that the remains be reburied somewhere more secure. The family avoided articulating what they were really discussing. Sometimes they called the body "it"; sometimes they referred to it as "the bear." But Steph eventually admitted that was a ruse. "I knew in my heart it was Jake," she said. One afternoon, Dave used the backhoe to dig a hole inside the corral. A couple of days later, the "bear" was gone from the manure pile, and the hole was packed with fresh dirt.

There were reasons to doubt each of these accounts. According to Deb's medical records, she weighed 97 pounds at the time of Jake's murder, and was still weak from the gallbladder surgery she'd had nine days before. At work, she'd been assigned to "light duty"; at the ranch, she wasn't able to lift a bale of hay. When her doctor examined her a few days after the murder, none of her stitches had torn. Jake had weighed at least 170 pounds. Would

WITH NO OFFICIAL ACTION, IT WAS HARD NOT TO FEEL AS THOUGH JAKE'S DISAPPEARANCE—AND HIS LIFE—DIDN'T MATTER.

ALAMO
SALOON
CAFE
BAR

it have been physically possible for her to drag his body from the second story of the lodge all the way to the manure pile, even with a winch and straps?

Many of Jake's friends assumed that Deb, dying of cancer, was covering for her daughter, and perhaps also her son-in-law. Ray, Jake and Steph's dad, also resisted the idea that Deb had murdered Jake. "No matter how bad it was, I just can't see her shooting her own boy," he told investigators. Cellphone records showed that Steph had been awake in the early-morning hours when Jake was killed. "Deborah didn't gain anything by killing Jacob," a CBI agent later testified in a court hearing. But Steph, who would gain "sole ownership of the ranch after Deborah passes," *did* have a motive.

One thing was clear. Whoever pulled the trigger, whoever helped bury the body, they were banking on the idea that everyone else would see Jake the way they did—as insignificant, even disposable. That no one would raise a fuss over the disappearance of a quiet, working-class guy who lived with his mother off a rural county highway.

OUR FAMILIES ARE supposed to be the people who know us best, but that often isn't the case. Sometimes the hardest people to see clearly are the ones we're closest to.

After the discovery of Jake's body, and the multiple and confusing confessions from his family members, what seemed to upset his friends most was how they mischaracterized Jake. According to Deb, her son was a drug addict and a drunk, a violent MMA fighter, someone who physically assaulted her and threatened to kill his sister and her family. According to Steph, Jake was a worthless waste of space, lazy and useless. No wonder Jake clung so strongly to his friends. His chosen family was perfectly aware of his flaws—his stubbornness, his arrogance—but equally attuned to his loyalty, generosity, and dedication.

On May 13, 2019, almost four years after her son's death, Deb pleaded guilty to second-degree murder and received a 40-year sentence. Dave Jackson had already been sentenced to a decade in prison for his role in moving Jake's body. When I visited Gunnison last fall, the question on everyone's mind was what would happen to Stephaine. She was scheduled to go on trial for first-degree murder the next fall, but Ajarian worried that she, like her mother, would end up getting a plea deal. The official version of Jake's death, codified in plea agreements and court filings, didn't strike him as the full story; without a trial, he feared he'd never know what had really happened to his friend, or why. Sure enough, several months after my visit, Steph pleaded guilty to tampering with a dead body. In November, Deb Rudibaugh died in jail; two days later, Steph was sentenced to 24 years in prison.

Ultimately the system had worked: Law enforcement had located the body, elicited a confession, and secured convictions. But even after the case was legally closed, it still felt unsettled, incomplete.

One evening, I met Ajarian at a pizza place. Under his mechanic's uniform, he wore a T-shirt that said PUNKER THAN YOU, and his dark hair was styled in messy spikes. His grief over his friend's death expressed itself as a kind of grasping for purpose. When Jake had first disappeared, when his friends were searching for clues and urging the sheriff's department to act, they'd been of use. Now there was nothing left to do—except maybe hold a memorial service for Jake. Perhaps that would help him feel as though his friend had finally been put to rest. But where would he host such an event? Gunnison was too full of bitter memories—but it was also Jake's only home.

The next day, I met Katheiser in his tidy basement apartment in Colorado Springs. He, too, was plagued with thoughts of what might have been. "A lot of mornings when I wake up, I think about Jake, what his life would have been," he told me. "I like to think that he could've sold the ranch for quite a bit of money and maybe just gone and worked a regular job somewhere. Bought a house. Maybe he would've met a girl and whatever. And he doesn't get that opportunity. That's what I would have hoped for him. Just that he could've gotten into a life that he wasn't frustrated at every day."

Rachel Monroe is a contributing writer at The Atlantic *and the author of* Savage Appetites: Four True Stories of Women, Crime, and Obsession.

18+

WHAT IS
AVAXHOME?

AVAXHOME -

the biggest Internet portal, providing you various content: brand new books, trending movies, fresh magazines, hot games, recent software, latest music releases.

Unlimited satisfaction one low price
Cheap constant access to piping hot media
Protect your downloadings from Big brother
Safer, than torrent-trackers

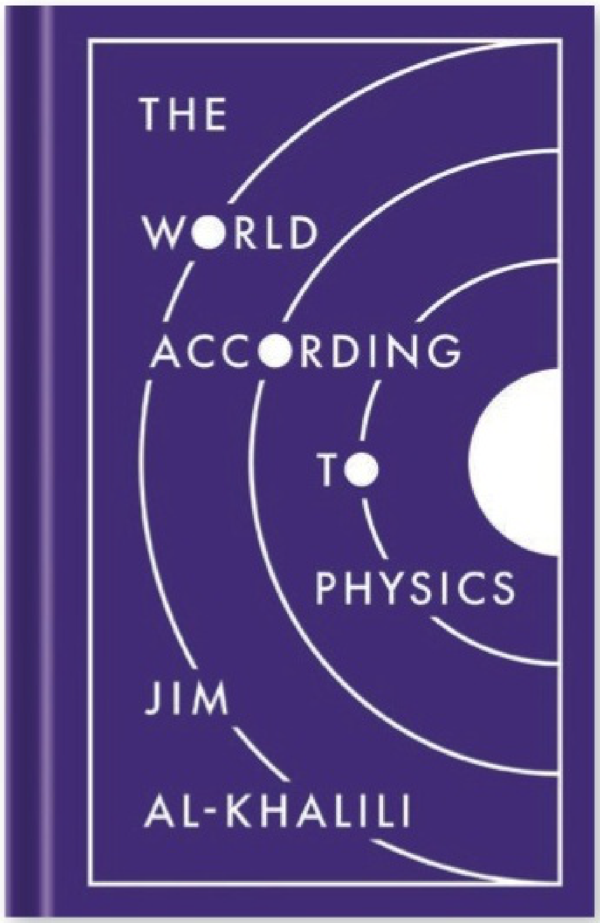
18 years of seamless operation and our users' satisfaction

All languages
Brand new content
One site

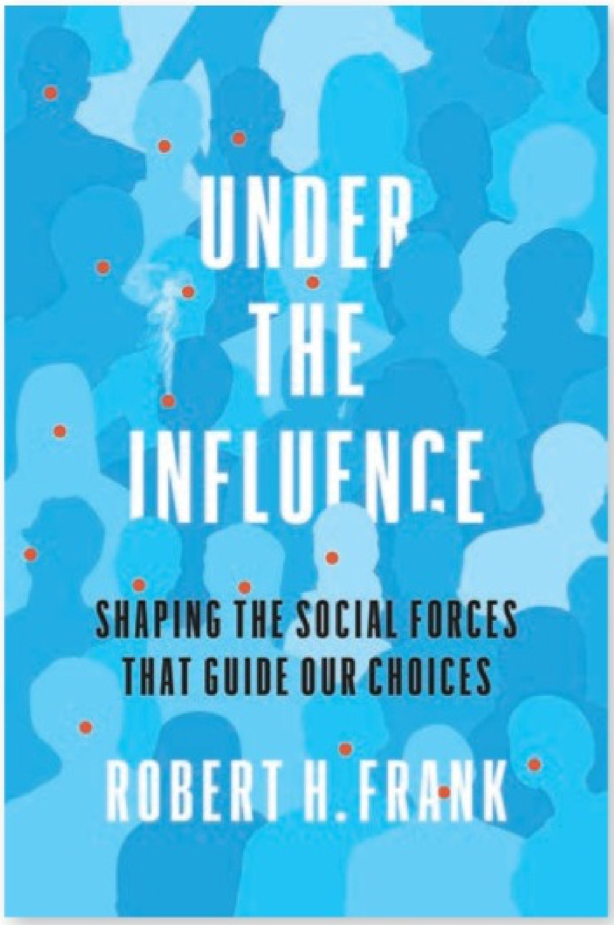
AVXLIVE.ICU

AvaxHome - Your End Place

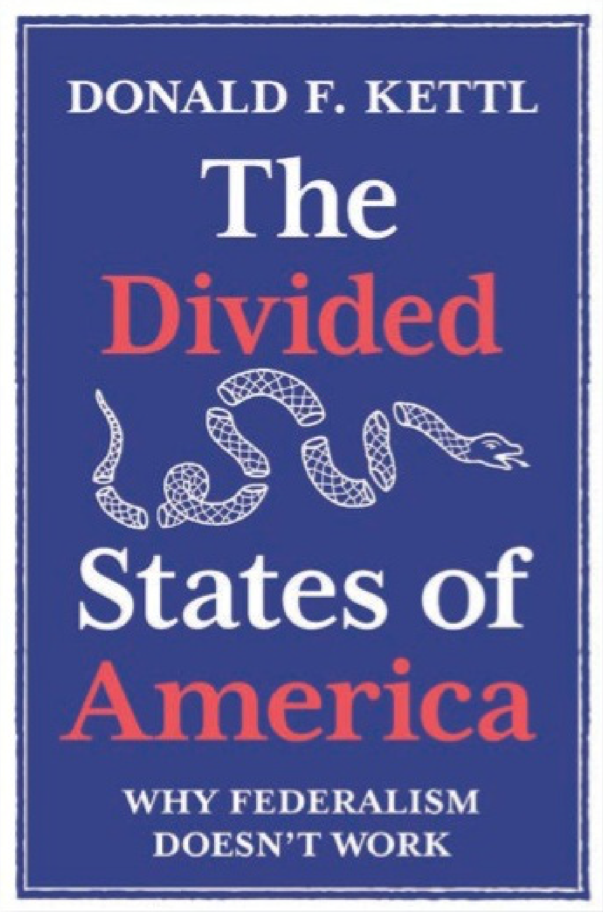
We have everything for all of your needs. Just open https://avxlive.icu


THE WORLD ACCORDING TO PHYSICS
JIM AL-KHALILI

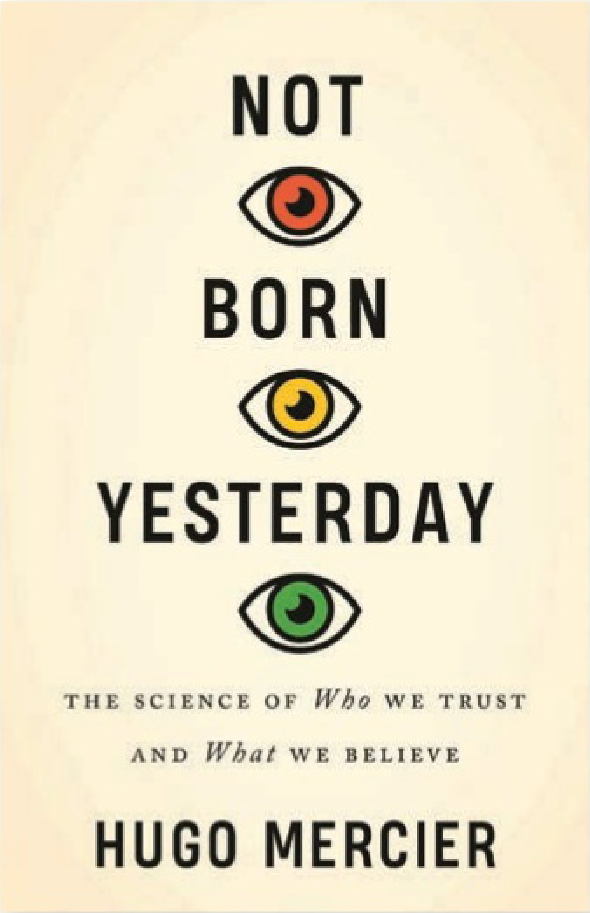
"This book will be enjoyed by anyone who wants a glimpse of how modern physicists are thinking about some of the hardest problems in the universe."
—Sean Carroll, author of *Something Deeply Hidden*


UNDER THE INFLUENCE
SHAPING THE SOCIAL FORCES THAT GUIDE OUR CHOICES
ROBERT H. FRANK

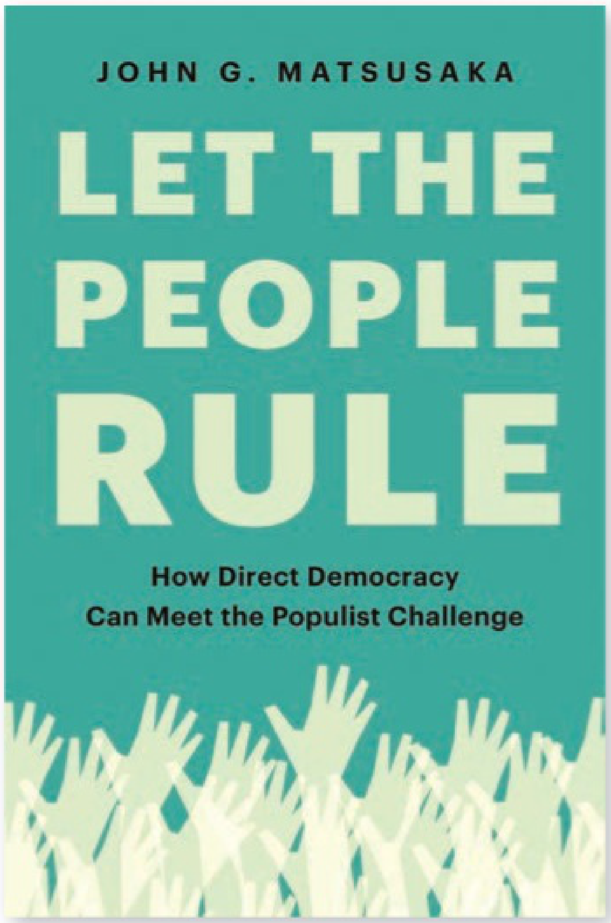
"Brilliant, fun, and profound. Other people influence us a lot more than we think, which is a big problem but also a terrific opportunity."
—Cass R. Sunstein, author of *On Freedom*


DONALD F. KETTL
The Divided States of America
WHY FEDERALISM DOESN'T WORK

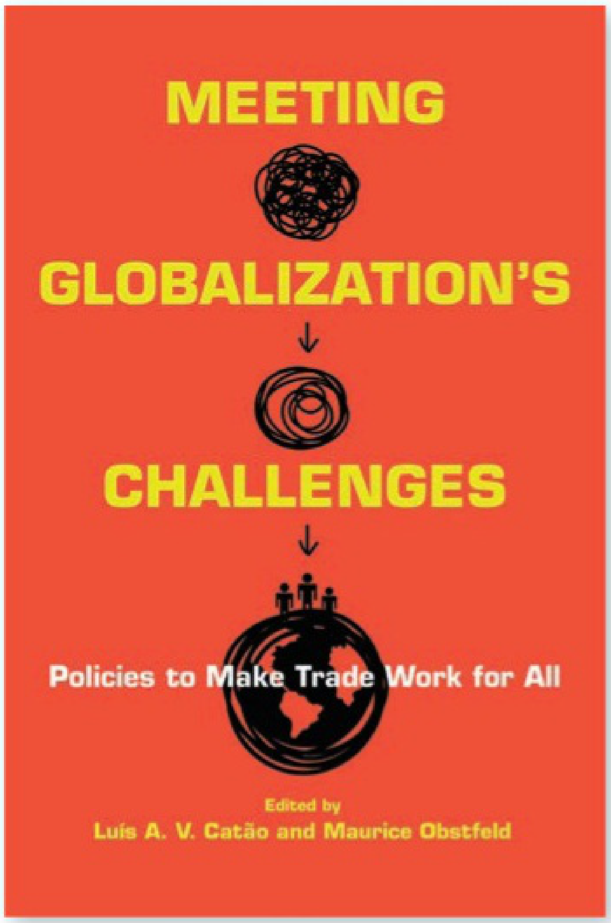
"A masterful analysis of the ways in which federalism has accelerated inequality and polarization in the United States."
—Francis Fukuyama, author of *Identity*


NOT BORN YESTERDAY
THE SCIENCE OF Who WE TRUST AND What WE BELIEVE
HUGO MERCIER

"*Not Born Yesterday* is a fascinating and important book for our time."
—Steven Pinker, author of *Enlightenment Now*


JOHN G. MATSUSAKA
LET THE PEOPLE RULE
How Direct Democracy Can Meet the Populist Challenge

"A provocative yet compelling remedy to the populist challenge to modern American democracy."
—Elisabeth R. Gerber, Gerald R. Ford School of Public Policy, University of Michigan


MEETING GLOBALIZATION'S CHALLENGES
Policies to Make Trade Work for All
Edited by
Luís A. V. Catão and Maurice Obstfeld

"Catão and Obstfeld's book offers valuable insights into what globalization can and cannot deliver."
—Carmen M. Reinhart, coauthor of *This Time Is Different*

PRINCETON UNIVERSITY PRESS

E PLURIBUS
UNUM

PHOTO RENDERING BY PATRICK WHITE

HOW TO DESTROY A GOVERNMENT

THE PRESIDENT IS WINNING HIS WAR ON AMERICAN INSTITUTIONS.

BY GEORGE PACKER

WHEN DONALD TRUMP CAME INTO OFFICE, THERE WAS A SENSE THAT HE WOULD BE OUTMATCHED BY THE VAST GOVERNMENT HE HAD JUST INHERITED.

The new president was impetuous, bottomlessly ignorant, almost chemically inattentive, while the bureaucrats were seasoned, shrewd, protective of themselves and their institutions. They knew where the levers of power lay and how to use them or prevent the president from doing so. Trump's White House was chaotic and vicious, unlike anything in American history, but it didn't really matter as long as "the adults" were there to wait out the president's impulses and deflect his worst ideas and discreetly pocket destructive orders lying around on his desk.

After three years, the adults have all left the room—saying just about nothing on their way out to alert the country to the peril—while Trump is still there.

James Baker, the former general counsel of the FBI, and a target of Trump's rage against the state, acknowledges that many government officials, not excluding himself, went into the administration convinced "that they are either smarter than the president, or that they can hold their own against the president, or that they can protect the institution against the president because they understand the rules and regulations and how it's supposed to work, and that they will be able to defend the institution that they love or served in previously against what they perceive to be, I will say neutrally, the inappropriate actions of the president. And I think they are fooling themselves. They're fooling themselves. He's light-years ahead of them."

The adults were too sophisticated to see Trump's special political talents—his instinct for every adversary's weakness, his fanatical devotion to himself, his knack for imposing his will, his sheer staying power. They also failed to appreciate the advanced decay of the Republican Party, which by 2016 was far gone in a nihilistic pursuit of power at all costs. They didn't grasp the readiness of large numbers of Americans to accept, even relish, Trump's contempt for democratic norms and basic decency. It took the arrival of such a leader to reveal how many things that had always seemed engraved in monumental stone turned out to depend on those flimsy norms, and how much the norms depended on public opinion. Their vanishing exposed the real power of the presidency. Legal precedent could be deleted with a keystroke; law enforcement's independence from the White House was optional; the separation of powers turned out to be a gentleman's agreement; transparent lies were more potent than solid facts. None of this was clear to the political class until Trump became president.

But the adults' greatest miscalculation was to overestimate themselves—particularly in believing that other Americans saw them as selfless public servants, their stature derived from a high-minded commitment to the good of the nation.

When Trump came to power, he believed that the regime was his, property he'd rightfully acquired, and that the 2 million civilians working under him, most of them in obscurity, owed him their total loyalty. He harbored a deep suspicion that some of them were plotting in secret to destroy him. He had to bring them to heel before he could be secure in his power. This wouldn't be easy—the permanent government had defied other leaders and outlasted them. In his inexperience and rashness—the very qualities his supporters loved—he made early mistakes. He placed unreliable or inept commissars in charge of the bureaucracy, and it kept running on its own.

But a simple intuition had propelled Trump throughout his life: Human beings are weak. They have their illusions, appetites, vanities, fears. They can be cowed, corrupted, or crushed. A government is composed of human beings. This was the flaw in the brilliant design of the Framers, and Trump learned how to exploit it. The wreckage began to pile up. He needed only a few years to warp his administration into a tool for his own benefit. If he's given a few more years, the damage to American democracy will be irreversible.

This is the story of how a great republic went soft in the middle, lost the integrity of its guts and fell in on itself—told through government officials whose names under any other president would have remained unknown, who wanted no fame, and who faced existential questions when Trump set out to break them.

1.

"WE'RE NOT NAZIS"

Erica Newland went to work at the Department of Justice in the last summer of the Obama administration. She was 29 and arrived with the highest blessings of the meritocracy—a degree from Yale Law School and a clerkship with Judge Merrick Garland of the D.C. Court of Appeals, whom President Obama had recently nominated to the Supreme Court (and who would never get a Senate hearing). Newland became an attorney-adviser in the Office of Legal Counsel, the department's brain trust, where legal questions about presidential actions go to be answered, usually in the president's favor. The office had approved the most extreme wartime powers under George W. Bush, including torture, before rescinding some of them. Newland was a civil libertarian and a skeptic of broad presidential power. Her hiring showed that the Obama Justice Department welcomed heterodox views.

The election in November changed her, freed her, in a way that she understood only much later. If Hillary Clinton had won, Newland likely would have continued as an ambitious, risk-averse government lawyer on a fast track. She would have felt pressure not to antagonize her new bosses, because elite Washington lawyers keep revolving through one another's lives—these people would be the custodians of her future, and she wanted to rise within the federal government. But after the election she realized that her new bosses were not likely to be patrons of her career. They might even see her as an enemy.

She decided to serve under Trump. She liked her work and her colleagues, the 20 or so career lawyers in the office, who treated one another with kindness and respect. Like all federal employees, she had taken an oath to support the Constitution, not the president, and to discharge her office "well and faithfully." Those patriotic duties implied certain values, and they were what kept her from leaving. In her mind, they didn't make her a conspirator of the "deep state." She wouldn't try to block the president's policies—only hold them to a high standard of fact and law. She doubted that any replacement would do the same.

Days after Trump's inauguration, Newland's new boss, Curtis Gannon, the acting head of the Office of Legal Counsel, gave a seal of approval to the president's ban, bigoted if not illegal, on travelers from seven majority-Muslim countries. At least one lawyer in the office went out to Dulles Airport that weekend to protest it. Another spent a day crying behind a closed office door. Others reasoned that it wasn't the role of government lawyers to judge the president's motives.

Employees of the executive branch work for the president, and a central requirement of their jobs is to carry out the president's policies. If they can't do so in good conscience, then they should leave. At the same time, there's good reason not to leave over the results of an election. A civil service that rotates with the party in power would be a reversion to the 19th-century spoils system, whose notorious corruption led to the 1883 Pendleton Act, which created the modern merit-based, politically insulated civil service.

In Trump's first year an exodus from the Justice Department began, including some of Newland's colleagues. Some left in the honest belief that they could no longer represent their client, whose impulsive tweets on matters such as banning transgender people from the military became the office's business to justify, but they largely kept their reasons to themselves. Almost every consideration—future job prospects, relations with former colleagues, career officials' long conditioning in anonymity—goes against a righteous exit.

Newland didn't work on the travel ban. Perhaps this distance allowed her to hold on to the idea that she could still achieve some good if she stayed inside. Her obligation was to the country, the Constitution. She felt she was fighting to preserve the credibility of the Justice Department. That first year, she saw her memos and arguments change outcomes.

Things got worse in the second year. It seemed as if more than half of the Office of Legal Counsel's work involved limiting the rights of noncitizens. The atmosphere of open discussion dissipated. The political appointees at the top, some of whom had voiced skepticism early on about the legality of certain policies, were readier to make excuses for Trump, to give his fabrications the benefit of the doubt. Among career officials, fear set in. They saw what was happening to colleagues in the FBI who had crossed the president during the investigation into Russian election interference—careers and reputations in ruins. For those with security clearances, speaking up, or even offering a snarky eye roll, felt particularly risky, because the bar for withdrawing a clearance was low. Steven Engel, appointed to lead the office, was a Trump loyalist who made decisions without much consultation. Newland's colleagues found less and less reason to advance arguments that they knew would be rejected. People began to shut up.

AMONG CAREER OFFICIALS, FEAR SET IN. THEY SAW WHAT WAS HAPPENING TO COLLEAGUES IN THE FBI WHO HAD CROSSED THE PRESIDENT.

One day in May 2018, Newland went into the lunchroom carrying a printout of a White House press release titled "What You Need to Know About the Violent Animals of MS-13." At a meeting about Central American gangs a few days earlier, Trump had used the word *animals* to describe undocumented immigrants, and in the face of criticism the White House was digging in. *Animals* appeared 10 times in the short statement. Newland wanted to know what her colleagues thought about it.

Eight or so lawyers were sitting around a table. They were all career people—the politicals hadn't come to lunch yet. Newland handed the printout to one of them, who handed it right back, as if he didn't want to be seen with it. She put the paper faceup on the table, and another lawyer turned it over, as if to protect Newland: "That way, if Steve walks in …"

Newland turned it over again. "It's a White House press release and I'm happy to explain why it bothers me." The conversation quickly became awkward, and then muted. Colleagues who had shared Newland's dismay in private now remained silent. It was the last time she joined them in the lunchroom.

No one risked getting fired. No one would become the target of a Trump tweet. The danger might be a mediocre performance review or a poor reference. "There was no sense that there was anything to be gained by standing up within the office," Newland told me recently. "The people who might celebrate that were not there to see it. You wouldn't be able to talk about it. And if you're going to piss everyone off within the department, you're not going to be able to get out" and find a good job.

She hated going to work. In the lobby of the Justice Department building, six blocks down Pennsylvania Avenue from the White House, Newland had to pass under a large portrait of the president. Every morning as she entered the building, she avoided looking at Trump, or she used side doors, where she wouldn't be confronted with his face. At night she slept poorly, plagued by regrets. Should she have pushed harder on a legal issue? Should she engage her colleagues in the lunchroom again? How could she live with the cruelty and bigotry of executive orders and other proposals, even legal ones, that crossed her desk? She was angry and miserable, and her friends told her to leave. She continued to find reasons to stay: worries about who would replace her, a determination not to abandon ship during an emergency, a sense of patriotism. Through most of 2018 she deluded herself that she could still achieve something by staying in the job.

In 1968, James C. Thomson, a former Asia expert in the Kennedy and Johnson administrations, published an essay in this magazine called "How Could Vietnam Happen? An Autopsy." Among the reasons Thomson gave for the war was "the 'effectiveness' trap"—the belief among officials that it's usually wisest to accept the status quo. "The inclination to remain silent or to acquiesce in the presence of the great men—to live to fight another day, to give on this issue so that you can be 'effective' on later issues—is overwhelming," he wrote. The trap is seductive, because it carries an impression of principled tough-mindedness, not cowardice. Remaining "effective" also becomes a reason never to quit.

As the executive orders and other requests for the office's approval piled up, many of them of dubious legality, one of Newland's supervisors took to saying, "We're just following orders." He said it without irony, as a way of reminding everyone, "We work for the president." He said it once to Newland, and when she gave him a look he added, "I know that's what the Nazis said, but we're not Nazis."

"The president has said that some of them are very fine people," Newland reminded him.

"Attorney General Sessions never said that," the supervisor replied. "Steve never said that, and I've never said that. We're not Nazis." That she could still have such an exchange with a supervisor seemed in itself like a reason not to leave.

But Newland, who is Jewish, sometimes asked herself: If she and her colleagues had been government lawyers in Germany in the 1930s, what kind of bureaucrat would each of them have been? There were the ideologues, the true believers, like one Clarence Thomas protégé. There were the opportunists who went along to get ahead. There were a handful of quiet dissenters. But

After Erica Newland concluded that her work in the Justice Department involved saving Trump from his own lies, she resigned. Photographed at home in Maryland, February 11, 2020.

PHOTOGRAPHS BY PEYTON FULFORD

many in the office just tried to survive by keeping their heads down. “I guess I know what kind I would have been,” Newland told me. “I would have stayed in the Nazi administration initially and then fled.” She thinks she would have been the kind of official who pushed for carve-outs in the Nuremberg Race Laws, preserving citizenship rights for Germans with only partial Jewish ancestry. She would have felt that this was better than nothing—that it justified having worked in the regime at the beginning.

Newland and her colleagues were saving Trump from his own lies. They were using their legal skills to launder his false statements and jury-rig arguments so that presidential orders would pass constitutional muster. When she read that producers of *The Apprentice* had had to edit episodes in order to make Trump’s decisions seem coherent, she realized that the attorneys in the Office of Legal Counsel were doing something similar. Loyalty to the president was equated with legality. “There was hardly any respect for the other departments of government—not for the lower courts, not for Congress, and certainly not for the bureaucracy, for professionalism, for facts or the truth,” she told me. “*Corruption* is the right word for this. It doesn’t have to be pay-to-play to be corrupt. It’s a departure from the oath.”

In the fall of 2018, Newland learned that she and five colleagues would receive the Attorney General’s Distinguished Service Award for their work on executive orders in 2017. The news made her sick to her stomach; her office probably thought she would feel honored by the award. She marveled at how the administration’s conduct had been normalized. But she also suspected that department higher-ups were using the career people to justify policies such as the travel ban—at least, the award would be seen that way. Newland and another lawyer stayed away from the ceremony where the awards were presented, on October 24.

On October 27, an anti-Semitic extremist killed 11 people at a synagogue in Pittsburgh. Before the shooting, he berated Jews online for enabling “invaders” to enter the United States from Mexico. That same week, the Office of Legal Counsel was working on an order that, in response to the “threat” posed by a large caravan of Central Americans making its way north through Mexico, temporarily refused all asylum claims at the southern border. Newland, who could imagine being shot in a synagogue, felt that her office’s work was sanctioning rhetoric that had inspired a mass killer.

She tendered her resignation three days later. By Thanksgiving she was gone. In the new year she began working at a nonprofit called Protect Democracy.

The asylum ban was the last public act of Attorney General Jeff Sessions. Trump fired him immediately after the midterm elections. Newland felt that Sessions—who had recused himself from the Russia investigation because he had spoken with Russian officials as an adviser in the Trump campaign—cared about protecting some democratic rights, but only for white Americans. He was eventually replaced by William Barr, a former attorney general with a reputation for intellect and competence. But Barr quickly made Sessions seem like a paragon of integrity. After watching him run her former department for a year, Newland wondered why she had stayed inside at all.

2.

CASHING IN

There’s always been corruption in Washington, and everywhere that power can be found, but it became institutionalized starting in the late 1970s and early ’80s, with the rise of the lobbying industry. The corruption that overtook the capital during that time was pecuniary and mostly legal, a matter of norm-breaking—of people’s willingness to do what wasn’t done. Robert Kaiser, a former *Washington Post* editor and the author of the 2010 book *So Damn Much Money: The Triumph of Lobbying and the Corrosion of American Government*, locates an early warning sign in Gerald Ford’s readiness to “sign up for every nasty piece of work that everybody offered him to cash in on being an ex-president.” Cashing in—once known as selling out—became a common path out of government, and then back in and out again. “There was a taboo structure,” Kaiser told me. “You don’t go from a senior Justice Department position to a senior partner in Lloyd Cutler’s law firm and then go back. It was a one-way trip. That taboo is no more.”

Former members of Congress and their aides cashed in as lobbyists. Retired military officers cashed in with defense contractors. Justice Department officials cashed in at high-paying law firms. Former diplomats cashed in by representing foreign interests as lobbyists or public-relations strategists. A few years high up in the Justice Department could translate into tens of millions of dollars in the private sector. Obscure aides on Capitol Hill became millionaires. Trent Lott abandoned his Senate seat early in order to get ahead of new restrictions on how soon he could start his career as a lobbyist. Ex-presidents gave six-figure speeches and signed eight-figure book deals.

As partisanship turned rabid, making money remained the one thing that Democrats and Republicans could still do together. Washington became a city of expensive restaurants, where bright young people entered government to do some good and then get rich. Luke Albee, a former chief of staff for two Democratic senators, learned to avoid hiring aides he would lose too quickly. “I looked out for who’s going to come in and spin out after 18 months, to renew and refresh their contacts in order to increase their retainers,” he told me. The revolving door didn’t necessarily induce individual officeholders to betray their oath—they might be scrupulously faithful public servants between turns at the trough. But, on a deeper level, the money aligned government with plutocracy. It also made the public indiscriminately cynical. And as the public’s trust in institutions plunged, the status of bureaucrats fell with it.

The swamp had been pooling between the Potomac and the Anacostia for three or four decades when Trump arrived in Washington, vowing to drain it. The slogan became one of his most potent. Fred Wertheimer, the president of the nonprofit

Democracy 21 and an activist for good government since the Nixon presidency, says of Trump: "He was ahead of a lot of national politicians when he saw that the country sees Washington as rigged against them, as corrupted by money, as a lobbyist's game—which is a game he played his whole life, until he ran against it. People wanted someone to take this on." By then the federal government's immune system had been badly compromised. Trump, in the name of a radical cure, set out to spread a devastating infection.

To Trump and his supporters, the swamp was full of scheming conspirators in drab D.C. office wear, coup plotters hidden in plain sight at desks, in lunchrooms, and on jogging paths around the federal capital: the deep state. A former Republican congressional aide named Mike Lofgren had introduced the phrase into the political bloodstream with an essay in 2014 and a book two years later. Lofgren meant the nexus of corporations, banks, and defense contractors that had gained so much financial and political control—sources of Washington's corruption. But conservatives at *Breitbart News*, Fox News, and elsewhere began applying the term to career officials in law-enforcement and intelligence agencies, whom they accused of being Democratic partisans in cahoots with the liberal media first to prevent and then to undo Trump's election. Like *fake news* and *corruption*, Trump reverse-engineered *deep state* into a weapon against his enemies, real or perceived.

TRUMP BELIEVED HE HAD TO CRUSH THE BUREAUCRACY OR ELSE IT WOULD DESTROY HIM.

The moment Trump entered the White House, he embarked on a colossal struggle with his own bureaucracy. He had to crush it or else it would destroy him. His aggrieved and predatory cortex impelled him to look for an official to hang out in public as a warning for others who might think of crossing him. Trump found one who had been nameless and faceless throughout his career.

3.

"HOW IS YOUR WIFE?"

Andrew McCabe joined the FBI in 1996, when he was 28, a year younger than Erica Newland was when she entered government service. He was the son of a corporate executive, a product of the suburbs, a Duke graduate, a lawyer at a small New Jersey firm. The bureau attracted him because of the human drama that investigations uncovered, the stories elicited from people who had crossed the line between the safe and predictable life of McCabe's upbringing and the shadow world beyond the law. His wife, Jill, who was training in pediatric medicine, encouraged him to apply. He took a 50 percent salary cut to join the bureau. At Quantico, it was almost a pleasure for him to be subsumed into the uniform and discipline and selflessness of an agent's training.

McCabe specialized in Russian organized crime and then terrorism. He rose swiftly through the ranks of the bureau and stayed out of the public eye. He had a reputation for intellect and unflappability, a natural manager. In early 2016—by then McCabe was in his late 40s, trim from triathlon competitions, his short hair going gray, the frames of his glasses black above and clear below—James Comey promoted him from head of the Washington field office to deputy director, the highest career position in the bureau, responsible for overseeing its day-to-day operations. In ordinary times the FBI's No. 2 remains invisible to the public, but McCabe's new job gave him a role in overseeing the investigation of Hillary Clinton's private email server, just as the 2016 presidential race was entering its consequential phase. By summer the FBI would be digging into Trump's campaign as well.

In July, Comey decided to announce the closing of the email case, calling Clinton's conduct "extremely careless" but not criminal. McCabe supported this extraordinary departure from normal procedure (the FBI doesn't comment on investigations, especially ones that don't result in prosecution) because the Clinton email case, played out on the front pages in the middle of the campaign, was anything but normal. Comey was a master at conveying ethical rectitude—he would rise above the din to his commanding height and convince the American people that the investigation had been righteous.

But Comey's statement created fury on both the left and the right and badly damaged the FBI's credibility. McCabe came to regret Comey's decision and his own role in it. "We believed that the American people believed in us," McCabe later wrote. "The FBI is not political." But he should have known. He had worked on the wildly overblown Benghazi case in the aftermath of the killing of the U.S. ambassador to Libya in 2012, which "revealed the surreal extremes to which craven political posturing had gone," and led to the equally overblown email case.

Having spent two decades as an upstanding G-man in a hierarchical institution, McCabe didn't understand what the country had become. He was unarmed and unready for what was about to happen.

When Andrew McCabe, the deputy director of the FBI, found himself in the president's crosshairs, his world turned upside down. Photographed in Washington, D.C., February 10, 2020.

Jill McCabe, a pediatric emergency-room doctor, had run for a seat in the Virginia Senate as a Democrat in 2015 in order to work for Medicaid expansion for poor patients. She lost the race. On October 23, 2016, two weeks before the presidential election, *The Wall Street Journal* revealed that her campaign had received almost $700,000 from the Virginia Democratic Party and the political-action fund of Governor Terry McAuliffe, a Clinton friend who had encouraged her to run. “Clinton Ally Aided Campaign of FBI Official’s Wife,” read the headline, with more innuendo than substance. McCabe had properly insulated himself from the campaign and knew nothing about the donations. FBI ethics people had cleared him to oversee the Clinton investigation, which he didn’t start doing until months after Jill’s race had ended. One had nothing to do with the other. But Trump tweeted about the *Journal* story, and on October 24 he enraged a crowd in St. Augustine, Florida, with the made-up news that Clinton had corrupted the bureau and bought her way out of jail through “the spouse—the *wife*—of the top FBI official who helped oversee the investigation into Mrs. Clinton’s illegal email server.” He snarled and narrowed his eyes, he tightened his lips and shook his head, he walked away from the microphone in disgust, and the crowd shrieked its hatred for Clinton and the rigged system.

This was the first time Trump referred to the McCabes. He didn’t use their names, but the scene was chilling.

Within a few days, *The Wall Street Journal* was preparing to run a second story with damaging information about the FBI and McCabe—this time, that he had told agents to “stand down” in a secret investigation of the Clinton Foundation. The sources appeared to be senior agents in the FBI’s New York field office, where anti-Clinton sentiment was expressed openly. But the story was wrong: McCabe had wanted to continue the investigation and had simply been following Justice Department policy to keep agents from taking any overt steps, such as issuing subpoenas, that might influence an upcoming election. For the second time in a week, his integrity—the lifeblood of an official in his position—was unjustly maligned in highly public fashion. He authorized his counsel, Lisa Page, and the chief FBI spokesperson, Michael Kortan, to correct the story by disclosing to the reporter a conversation between McCabe and a Justice Department official—an authorization he believed to be appropriate, because it was in the FBI’s interest as well as his own.

The leak inadvertently confirmed the existence of an investigation into the Clinton Foundation, and it upset Comey. The director was already unhappy with the revelations about Jill McCabe’s campaign. He prepared to order McCabe to recuse himself from the Clinton email investigation, which the FBI reopened on October 28, 11 days before the election. Comey later claimed that when he’d asked McCabe about the leak, McCabe had said something like “I don’t know how this shit gets in the media.” (McCabe later said that he’d told Comey he had authorized the leak.)

This incident, so slight amid the large dramas of those months, set in motion a series of fateful events for McCabe.

When Trump won, the McCabes thought that the new president might drop the conspiracy theory about Jill’s campaign and stop his attacks on them. “He got what he wanted,” she told me recently, “so maybe he’ll just leave us alone now. For, like, a moment I thought that.”

As Trump prepared to take power, the Russia investigation closed in on people around him, beginning with Michael Flynn, his choice for national security adviser, who lied to FBI agents about phone calls with the Russian ambassador. Trump made it clear that he expected the FBI to drop the Flynn case and shield the White House from the tightening circle of investigation. At a White House dinner for two, the new president told his FBI director that he wanted loyalty. Comey replied with a promise of honesty. Trump then asked if McCabe “has a problem with me. I was pretty rough on him and his wife during the campaign.” Comey called McCabe “a true professional,” adding: “FBI people, whatever their personal views, they strip them away when they step into their bureau roles.”

But Trump didn’t want true professionals. Either you were loyal or you were not, and draining the swamp turned out to mean getting rid of those who were not. His understanding of human motivation told him that, after his “pretty rough” treatment, McCabe couldn’t possibly be loyal—he would want revenge, and he would get it through an investigation. In subsequent conversations with Comey, Trump kept returning to “the McCabe thing,” as if fixated on the thought that he had created an enemy in his own FBI.

“We knew that we were doomed,” Jill McCabe told me. “Our days were numbered. It was gradual, but by May we knew it could end really terribly.”

On May 9, 2017, McCabe was summoned across the street to the office of Attorney General Jeff Sessions, who informed him that Trump had just fired Comey. McCabe was now acting director of the FBI.

Trump wanted to see him that evening. Comey had told McCabe about Trump’s demands for loyalty, his attempts to interfere with the Russia investigation, and his suspicion of McCabe himself. McCabe fully expected to be fired any day. When he was ushered into the Oval Office, he found the president seated behind his imposing desk, with his top advisers—the vice president, the chief of staff, the White House counsel—perched submissively before him in a row of small wooden chairs, where McCabe joined them. Trump asked McCabe whether he disagreed with Comey’s decision to close the Clinton email case in July. No, McCabe said; he and Comey had worked together closely. Trump kept pushing: Was it true that people at the FBI were unhappy about the decision, unhappy with Comey’s leadership? McCabe said that some agents disagreed with Comey’s handling of the Clinton case, but that he had generally been popular.

“Your only problem is that one mistake you made,” McCabe later recalled Trump saying. “That thing with your wife. That one mistake.” McCabe said nothing, and Trump went on: “That was the only problem with you. I was very hard on you during my campaign. That money from the Clinton friend—I was very hard. I said a lot of tough things about your wife in the campaign.”

“I know,” McCabe replied. “We heard what you said.” He told Trump that Jill was a dedicated doctor, that running for office had been another way for her to try to help her patients. He and their two teenage children had completely supported her decision.

"Oh, yeah, yeah. She's great. Everybody I know says she's great. You were right to support her. Everybody tells me she's a terrific person."

The next morning, while McCabe was meeting with his senior staff about the Russia investigation, the White House called—Trump was on the line. This was disturbing in itself. Presidents are not supposed to call FBI directors, except about matters of national security. To prevent the kind of political abuses uncovered by Watergate, Justice Department guidelines dating back to the mid-'70s dictate a narrow line of communication between law enforcement and the White House. Trump had repeatedly shown that he either didn't know or didn't care.

The president was upset that McCabe had allowed Comey to fly back from Los Angeles on the FBI's official plane after being fired. McCabe explained the decision, and Trump exploded: "That's not right! I never approved that!" He didn't want Comey allowed into headquarters—into any FBI building. Trump raged on. Then he said, "How is your wife?"

"She's fine."

"When she lost her election, that must have been very tough to lose. How did she handle losing? Is it tough to lose?"

McCabe said that losing had been difficult but that Jill was back to taking care of children in the emergency room.

"Yeah, that must have been really tough," the president told his new FBI director. "To lose. To be a loser."

As McCabe held the phone, his aides saw his face go tight. Trump was forcing him into the humiliating position of not being able to stand up for his wife. It was a kind of Mafia move: asserting dominance, emotional blackmail.

"It elevates the pressure of this idea of loyalty," McCabe told me recently. "If I can actually insult your wife and you still agree with me or go along with whatever it is I want you to do, then I have you. I have split the husband and the wife. He first tried to separate me from Comey—'You didn't agree with him, right?' He tried to separate me from the institution—'Everyone's happy at the FBI, right?' He boxes you into a corner to try to get you to accept and embrace whatever bullshit he's selling, and if he can do that, then he knows you're with him."

McCabe would return to the conversation again and again, asking himself if he should have told Trump where to get off. But he had an organization in crisis to run. "I didn't really need to get into a personal pissing contest with the president of the United States."

Far from being the political conspirator of Trump's dark imaginings, McCabe was out of his depth in an intensely political atmosphere. When Trump demanded to know whom he'd voted for in 2016, McCabe was so shocked that he could only answer vaguely: "I played it right down the middle." The lame remark embarrassed McCabe, and he later clarified things with Trump: He was a lifelong Republican, but he hadn't voted in 2016, because of the FBI investigations into the two candidates. This straightforward answer only deepened Trump's suspicions.

But the professionalism that left McCabe exposed to Trump's bullying served him as he took charge of the FBI amid the momentous events of that week. "Once Jim got fired, Andy's focus and resolve were quite amazing," James Baker, then the FBI general counsel, told me. McCabe had two urgent tasks. The first was to reassure the 37,000 employees now working under him that the organization would be all right. On May 11, in a televised Senate hearing, he was asked whether White House assertions of Comey's unpopularity in the bureau were true. McCabe had prepared his answer. "I can tell you that I hold Director Comey in the absolute highest regard," he said. "I can tell you also that Director Comey enjoyed broad support within the FBI and still does to this day." He was saying to the country and his own people what he couldn't say to Trump's face.

The second task was to protect the Russia investigation. Comey's firing, and the White House lies about the reason—that it was over the Clinton email case, when all the evidence pointed to the Russia investigation—raised the specter of obstruction of justice. On May 15, McCabe met with his top aides—Baker, Lisa Page, and two others—and concluded that they had to open an investigation into Trump himself. They had to find out whether the president had been working in concert with Russia and covering it up.

The case was under the direction of the deputy attorney general, Rod Rosenstein. McCabe doubted that Rosenstein, whose memo Trump had used to justify firing Comey, could be trusted to withstand White House pressure to shut down the investigation. He urged Rosenstein to appoint a special counsel to take over the case. Then it would be beyond the reach of the White House and the Justice Department. If Trump tried to kill it, the world would know. McCabe pressed Rosenstein several times, but Rosenstein kept putting him off.

On May 17, McCabe informed a small group of House and Senate leaders that the FBI was opening a counterintelligence investigation into Trump for possible conspiracy with Russia during the 2016 campaign, as well as a criminal investigation for obstruction of justice. Rosenstein then announced that he was appointing Robert Mueller to take over the case as special counsel.

That night McCabe was chauffeured in the unfamiliar silence of the director's armored Suburban to his house in the Virginia exurbs beyond Dulles Airport. Jill was making dinner while their daughter did her homework at the kitchen island. McCabe took off his jacket, loosened his tie, and opened a beer. Ever since Comey's firing he'd felt as though he were sprinting toward a goal—to make the Russia investigation secure and transparent. "We've done what we needed to do," he said. "The president is going to be out for blood and it's going to be mine."

"You did your job," Jill said. "That's the important thing."

In the coming months, when things grew dark for the McCabes, Jill would remind Andy of that evening together in the kitchen.

The tweets abruptly resumed on July 25: "Problem is that the acting head of the FBI & the person in charge of the Hillary investigation, Andrew McCabe, got $700,000 from H for wife!" By now Trump knew McCabe's name, but Jill would always be the "wife." The next day, more tweets: "Why didn't A.G. Sessions replace Acting FBI Director Andrew McCabe, a Comey friend who was in charge of Clinton investigation but got … big dollars ($700,000) for his wife's political run from Hillary Clinton and her representatives. Drain the Swamp!"

The tweets mortified McCabe. He had no way of answering the false charge without calling more attention to it. He went into headquarters and made a weak joke about the day's news and tried to keep himself and his organization focused on work while knowing that everyone he met with was thinking about the tweets. Baker, who also became a target of Trump's tweets, described their effect to me. "It's just a very disorienting, strange experience for a person like me, who doesn't have much of a public profile," he said. "You can't help having a physiological reaction, like getting nervous, sweating. It's frightening, and you don't know what it's going to mean, and suddenly people start talking about you, and you feel very exposed—and not in a positive way."

The purpose of Trump's tweets was not just to punish McCabe for opening the investigation, but to taint the case. "He attacks people to make his misdeeds look like they were okay," Jill said. "If Andrew was corrupt, then the investigation was corrupt and the investigation was wrong. So they needed to do everything they could to prove Andrew McCabe was corrupt and a liar."

Three days after the tweets resumed, on July 28, McCabe was urgently summoned to the Justice Department. Lawyers from the Office of the Inspector General who were looking into the Clinton email investigation had found thousands of text messages between McCabe's counsel, Lisa Page, and the bureau's ace investigator, Peter Strzok. Both of them had been central to the Clinton and Russia cases; Strzok was now working for Mueller. During the campaign, Page and Strzok had exchanged scathing comments about Trump. They had also been having an extramarital affair. Page and Strzok were among McCabe's closest colleagues; Page was his trusted friend. This was all news to him—terrible news.

The lawyers fired off questions about the texts. Because McCabe was a subject of the inspector general's investigation of the Clinton case, he told the lawyers in advance that he wouldn't answer questions about his involvement without his personal attorney present. In spite of this, their questions suddenly veered to the second *Wall Street Journal* article, with its suggestion that McCabe had been corrupted by Clinton. One of the lawyers wondered whether "CF" in a text from Page referred to the Clinton Foundation. "Do you happen to know?" he asked McCabe.

"I don't know what she's referring to."

"Or perhaps a code name?"

"Not one that I recall," McCabe said, "but this thing is, like, right in the middle of the allegations about me, and so I don't really want to get into discussing this article with you. Because it just seems like we're kind of crossing the strings a little bit there."

"Was she ever authorized to speak to reporters in this time period?" a lawyer asked.

"Not that I'm aware of."

This wasn't true. McCabe himself had authorized Page to speak to the *Journal* reporter. But he had stopped paying attention to the lawyers' questions, which weren't supposed to have come up at all—he wanted to put an end to them. He had to think through how he was going to deal with this new emergency. The Page-Strzok texts were bound to leak, and they would be claimed by Trump and his partisans as proof that the FBI was a cesspool of bias and corruption. Page and Strzok would be personally destroyed. In New York City that day, Trump made his remark about Central American "animals," and he urged law-enforcement officers to rough up suspected gang members. The bureau would have to formulate a response and reaffirm its code of integrity. And the McCabes were back in the president's crosshairs.

"THE PRESIDENT IS GOING TO BE OUT FOR BLOOD AND IT'S GOING TO BE MINE," McCABE SAID.

McCabe had the sense that everything was falling apart. It's not hard to imagine the state of mind that led him to say, "Not that I'm aware of." He had done it before, on the other terrible day of that year, May 9, when a different internal investigation had blindsided him with the same question about the long-ago *Journal* leak, and McCabe had given the same inaccurate answer. A right-down-the-middle career official, his integrity under continued assault, might well make such a needless mistake.

That was a Friday. Over the weekend he realized that he had left the lawyers with a false impression. On Tuesday he called the inspector general's office to correct it. That same week the Senate confirmed Christopher Wray as the new FBI director, and McCabe went back to being the deputy. After 21 years as an agent, he planned to retire as soon as he was eligible, in March 2018, when he turned 50, and go into the private sector. But it was already too late.

On December 19, testifying before a House committee, McCabe confirmed Comey's account of Trump's attempt to kill the Russia investigation. Two days later, before another House committee, he was asked how attacks on the FBI had affected him. "I'll tell you, it has been enormously challenging," McCabe said. He described how his wife—"a wonderful, brilliant, caring physician"—had run for office to help expand health insurance for poor people. "And having started with that noble intention, to have gone through what she and my children have experienced over the last year has been—it has been devastating."

Two days before Christmas, Trump let fly a menacing tweet: "FBI Deputy Director Andrew McCabe is racing the clock to retire with full benefits. 90 days to go?!!!" No personnel issue was too small for the president's attention if it concerned a bureaucrat he considered an enemy. Another tweet that same day and one on Christmas Eve repeated the old falsehoods about Jill's campaign. She couldn't stop blaming herself for all the trouble that had come to her family.

Just after the holidays, McCabe learned that his part of the inspector general's report on the Clinton email investigation would be released separately. Instead of later in the spring, the McCabe piece would be finished in just a couple of months. In January 2018, Wray, the new director, forced McCabe out of the deputy's job. Rather than accept a lower position, he went on leave in anticipation of his retirement in mid-March. At the end of February, the inspector general completed his 35-page report with its devastating conclusion: McCabe had shown "lack of candor" on four occasions in his statements about the *Wall Street Journal* leak. The Office of Professional Responsibility recommended that he be fired. To some in the Justice Department, this represented accountability for a senior official.

McCabe received the case file on March 9. FBI guidelines generally grant the subject 30 days to respond, but the Justice Department seemed determined to satisfy the White House and get ahead of McCabe's retirement. He was given a week. On Thursday, March 15, he met with a department official and argued his case: He'd been blindsided by questions about an episode that he'd forgotten in the nonstop turmoil of the following months, and when he realized that he'd made an inaccurate statement, he had come forward voluntarily to correct it. McCabe thought he made a solid argument, but he knew what was coming.

On Friday night, watching CNN, McCabe learned that he had been fired from the organization where he had worked for 21 years. He was 26 hours away from his 50th birthday.

"THERE'S A LOT OF PEOPLE OUT THERE WHO ARE UNWILLING TO STAND UP AND DO THE RIGHT THING, BECAUSE THEY DON'T WANT TO BE THE NEXT ANDREW McCABE."

An hour after the news broke, Trump broadcast his delight: "Andrew McCabe FIRED, a great day for the hard working men and women of the FBI—A great day for Democracy." It was his eighth tweet about McCabe; there have been 33 since then, and counting.

"To be fired from the FBI and called a liar—I can't even describe to you how sick that makes me to this day," McCabe told me, nearly two years later. "It's so wildly offensive and humiliating and just horrible. It bothers me as much today as it did on March 16, when I got fired. I've thought about it for thousands of hours, but it still doesn't make it any easier to deal with."

The extraordinary rush to get rid of McCabe ahead of his retirement, with the president baying for his scalp, appalled many lawyers both in and out of government. "To engineer the process that way is an unforgivable politicization of the department," the legal expert Benjamin Wittes told me. McCabe lost most of his pension. He became unemployable, and "radioactive" among his former colleagues—almost no one at headquarters would have contact with him. Worst of all, the Justice Department referred the inspector general's report to the U.S. attorney for Washington, D.C. A criminal indictment in such cases is almost unheard of, but the sword of the law hung over McCabe's head for two years, an abnormally long time, while prosecutors hardly uttered a word. Last September, McCabe learned from media reports that a grand jury had been convened to vote on an indictment. He and Jill told their children that their father might be handcuffed, the house might be searched, he might even be jailed. The grand jury met, and the grand jury went home, and nothing happened. The silence implied that the jurors had found no grounds to indict. One of the prosecutors dropped off the case, unusual at such a crucial stage, and another left for the private sector, reportedly unhappy about political pressure. Still, the U.S. Attorney's Office kept the case open until mid-February, when it was abruptly dropped.

McCabe discusses his situation with the oddly calm manner of the straight man in a Hitchcock movie who can't quite fathom the nightmare in which he's trapped. Jill, who is more demonstrative, compares the ordeal to an abusive relationship: Every time she feels like she can finally breathe a little, another blow lands. On any given night, a Fox News host can still be heard denouncing her husband. Just recently, a reporter for a right-wing TV network, One America News, announced on the White House lawn that McCabe had had an affair with Lisa Page. It was a lie, and the network was forced to retract it, but not before McCabe had to call his daughter at school and warn her that she would see the story on the internet.

McCabe has written a book, and he appears regularly on CNN, and he volunteers his time with the Innocence Project, working on the cases of wrongly convicted prisoners. Jill is getting an M.B.A. while continuing to do the overnight shift at the emergency room. But they've come to accept that they will never be entirely free.

Every member of the FBI leadership who investigated Trump has been forced out of government service, along with officials in the Justice Department, and subjected to a campaign of vilification. Even James Baker, who was never accused of wrongdoing, found himself too controversial to be hired in the private sector. But it is McCabe's protracted agony that provides the most vivid warning of what might happen to other career officials if their professional duties ever collide with Trump's personal interests. It struck fear in Erica Newland and her colleagues in the Office of Legal Counsel. It chilled officials farther afield, in the State Department. “There’s a lot of people out there,” Jill said, “who are unwilling to stand up and do the right thing, because they don’t want to be the next Andrew McCabe.”

4.

ENDS AND MEANS

Nothing constrained Trump more than independent law enforcement. Nothing would strengthen him like the power to use it for his own benefit. “The authoritarian leader simply has to get control over the coercive apparatus of the state,” Susan Hennessey and Benjamin Wittes write in their new book, *Unmaking the Presidency*. “Without control of the Justice Department, the would-be tyrant’s tool kit is radically incomplete.”

When Trump nominated William Barr to replace Jeff Sessions as attorney general, the Washington legal establishment exhaled a collective sigh of relief. Barr had held the same job almost 30 years earlier, in the last 14 months of the first Bush presidency. He was now 68 and rich from years in the private sector. He had nothing to prove and nothing to gain. He was considered an “institutionalist”—quite conservative, an advocate of strong presidential power, but not an extremist. Because he was intimidatingly smart and bureaucratically skillful, he would protect the Justice Department from Trump’s maraudings far better than the intellectually inferior Sessions and his ill-qualified temporary replacement, Matthew Whitaker. Barr told a friend that he agreed to come back because the department was in chaos and needed a leader with a bulletproof reputation.

Before Barr’s confirmation hearings, Neal Katyal, a legal scholar who was acting solicitor general under Obama, warned a group of Democratic senators not to be fooled: Barr’s views were well outside mainstream conservatism. He could prove more dangerous than any of his predecessors. And the reasons for concern could be found by anyone who took the trouble to study Barr’s record, which was made of three durable, interwoven strands.

The first was his expansive view of presidential power, sometimes called the theory of the “unitary executive”—the idea that Article II of the Constitution gives the president sole and complete authority in the executive branch, with wide latitude to interpret laws and make war. When Barr became head of the Office of Legal Counsel under George H. W. Bush, in 1989, he wrote an influential memo listing 10 ways in which Congress had been trespassing on Article II, arguing, “Only by consistently and forcefully resisting such congressional incursions can executive branch prerogatives be preserved.” He created and chaired an interagency committee to fight document requests and assert executive privilege.

One target of Barr’s displeasure was the Office of the Inspector General, created by Congress in 1978 as an independent watchdog in executive-branch agencies. “For a guy like Barr, this goes to the core of the unitary executive—that there’s this entity in there that reports to Congress,” says Jack Goldsmith, a Harvard law professor who served as head of the Office of Legal Counsel under George W. Bush. When Barr became attorney general in 1991, he made sure that the inspector general’s office in the Justice Department had as little power as possible to investigate misconduct.

Barr has even expressed skepticism about the guidelines, established after Watergate, that insulate the Justice Department from political interference by the White House. In a 2001 oral history Barr said, “I think it started picking up after Watergate, the idea that the Department of Justice has to be independent … My experience with the department is that the most political people in the Department of Justice are the career people, the least political are the political appointees.” In Barr’s view, political interference in law enforcement is almost a contradiction in terms. Since presidents (and their appointees) are subject to voters, they are better custodians of justice than the anonymous and unaccountable bureaucrats known as federal prosecutors and FBI investigators. Barr seemed unconcerned about what presidents might do between elections.

The Iran-Contra scandal that took place under Ronald Reagan shadowed Bush’s presidency in the form of an investigation conducted by the independent counsel Lawrence Walsh. Barr despised independent counsels as trespasses on the unitary executive. A month before Bush left office, Barr persuaded the president to issue full pardons of several Reagan-administration officials who had been found guilty in the scandal, in addition to one—former Defense Secretary Caspar Weinberger—who had been indicted and might have provided evidence against Bush himself. The appearance of a cover-up didn’t trouble Barr. But six years later, when the independent counsel Kenneth Starr was investigating President Bill Clinton for perjury and obstruction in a sex scandal, Barr, by then a corporate lawyer, criticized the Clinton White House for attacks on Starr that could impede the investigation and even intimidate jurors and witnesses.

Here is a glimpse of the second strand in Barr’s thinking: partisanship. Less conspicuous than the first, which sheathes it in constitutional principles, it never disappears. Barr is a persistent critic of independent counsels—except when they’re investigating a Democratic president. He’s a vocal defender of presidential authority—when a Republican is in the White House.

This partisanship has to be understood in relation to the third enduring strand of Barr’s thinking: He is a Catholic—a very conservative one. John R. Dunne, who ran the Justice Department’s civil-rights division when Barr was attorney general under Bush, calls him “an authoritarian Catholic.” Dunne and his wife once had dinner at Barr’s house and came away with the impression of a traditional patriarch whom only the family dog disobeyed. Barr attended Columbia University at the height of the anti-war movement, and he drew a lesson from those years that shaped many other religious conservatives as well: The challenge to traditional values and authority in the 1960s sent the country into a long-term moral decline.

In 1992, as attorney general, Barr gave a speech at a right-wing Catholic conference in which he blamed "the long binge that began in the mid-1960s" for soaring rates of abortion, drug use, divorce, juvenile crime, venereal disease, and general immorality. "The secularists of today are clearly fanatics," Barr said. He called for a return to "God's law" as the basis for moral renewal. "There is a battle going on that will decide who we are as a people and what name this age will ultimately bear." One of Barr's speechwriters at the time was Pat Cipollone, who is now Trump's White House counsel and served as one of his defenders during impeachment. In 1995, as a private citizen, Barr published the same argument, with the same military metaphors, as an essay in the journal then called *The Catholic Lawyer*. "We are locked in a historic struggle between two fundamentally different systems of values," he wrote. "In a way, this is the end product of the Enlightenment." The secularists' main weapon in their war on religion, Barr continued, is the law. Traditionalists would have to fight back the same way.

BARR AND TRUMP ARE COLLABORATING TO DESTROY THE INDEPENDENCE OF ANYTHING THAT COULD RESTRAIN THE PRESIDENT.

What does this apocalyptic showdown have to do with Article II and the unitary executive? It raises the stakes of politics to eschatology. With nothing less than Christian civilization at stake, the faithful might well conclude that the ends justify the means.

Barr spent the quarter century between Presidents Bush and Trump in private practice, serving on corporate boards, and caring for the youngest of his three daughters as she battled lymphoma. Barr and Cipollone also sat together on the board of the Catholic Information Center, an office in Washington closely affiliated with Opus Dei, a far-right Catholic organization with influential connections in politics and business around the world. During those years, the Republican Party sank into its own swamp of moral relativism, hitting bottom with Trump's presidency.

Trump's arrival brought Barr out of semi-retirement as a reliable advocate. When Comey reopened the Clinton email investigation 11 days before the election, Barr wrote an approving op-ed. When Trump fired Comey six months later, supposedly for mishandling the same investigation, Barr published another approving op-ed. The only consistent principle seemed to be what benefited Trump. Then, in June 2018, Barr wrote a 19-page memo and sent it, unsolicited, to Rod Rosenstein. The memo argued that Robert Mueller could not charge Trump with obstructing justice for taking actions that came under the president's authority, including asking Comey to back off the Flynn investigation and then firing Comey. In Barr's expansive view of Article II, it was nearly impossible for Trump to obstruct justice at all.

Writing that memo was a strange thing for a former attorney general to do with his spare time. Six months later, Trump nominated Barr to his old job.

After Barr assumed office, his advocacy for Trump intensified. When Mueller completed his report, in March 2019, Barr rushed to tell the world not only that the report cleared Trump of conspiring with Russia, but that the lack of an "underlying crime" cleared the president of obstruction as well—despite 10 damning examples of possible crimes in the report, which Barr finally released, lightly redacted, three weeks later. Those extra weeks allowed Trump a crucial moment to claim complete exoneration. Then he turned his rhetorical gun on his pursuers. He wanted them brought down.

Two investigations of the investigators were already in the works—one by the Justice Department's inspector general, focusing on electronic surveillance of a Trump-campaign adviser (Barr called it "spying"), and a broader review by John Durham, the U.S. attorney for Connecticut, under Barr's supervision. In an interview with CBS in May, Barr prejudged the outcome of Durham's review, strongly implying that the Russia investigation had been flawed from the start. He located the misconduct in the deep state: "Republics have fallen because of [a] Praetorian Guard mentality where government officials get very arrogant, they identify the national interest with their own political preferences, and they feel that anyone who has a different opinion, you know, is somehow an enemy of the state. And, you know, there is that tendency that they know better and that, you know, they're there to protect as guardians of the people. That can easily translate into essentially supervening the will of the majority and getting your own way as a government official."

Even if this were true of the Russia case, the attorney general had no business foreshadowing the result of investigations. And when, in December, the inspector general released his report, finding serious mistakes in the applications for surveillance warrants but no political bias—no "Praetorian Guard"—in the Russia investigation, Barr wasn't satisfied. He announced that he disagreed with the report.

Barr uses his official platform to gaslight the public. In a speech to the conservative Federalist Society in Washington in November, he devoted six paragraphs to perhaps the most contemptuously partisan remarks an attorney general has ever made. Progressives are on a "holy mission" in which ends justify means,

President Donald Trump and Attorney General William Barr at the White House, November 26, 2019

DOUG MILLS / THE NEW YORK TIMES / REDUX

while conservatives "tend to have more scruple over their political tactics," Barr claimed. "One of the ironies of today is that those who oppose this president constantly accuse this administration of 'shredding' constitutional norms and waging a war on the rule of law. When I ask my friends on the other side, 'What exactly are you referring to?,' I get vacuous stares, followed by sputtering about the travel ban or some such thing."

The core of the speech was a denunciation of legislative and judicial encroachments on the authority of the executive—as if presidential power hasn't grown enormously since 9/11, if not the New Deal, and as if Trump's conduct in office falls well within the boundaries of Article II. In October, at Notre Dame, the attorney general recycled his old jeremiad on religious war. For Barr the year is always 1975, Congress is holding hearings to enfeeble the presidency, and the secular left is destroying the American family. He is using his short time remaining onstage to hold off the coming darkness, and if Providence has played the cosmic joke of vesting righteous power in the radically flawed person of Donald Trump, Barr will do what he must to protect him: distort the Mueller report; impugn Justice Department officials; try to keep the Ukraine whistle-blower's complaint from Congress via spurious legal arguments; give cover to White House stonewalling of the impeachment inquiry; create an official channel for the delivery of political dirt on the president's opponents; overrule his prosecutors on behalf of Trump's friend Roger Stone.

Barr and Trump are pursuing very different projects—the one a crusade to align government with his idea of religious authority, the other a venal quest for self-aggrandizement. But they serve each other's purpose by collaborating to destroy the independence of anything—federal agencies, the public servants who work in them, even the other branches of government—that could restrain the president.

"Barr is perhaps the most political attorney general we've ever had," a longtime government lawyer told me. He described the devastating effects on law enforcement of Trump's unending assault and Barr's complicity. "I know from talking to friends that many of the career people are distressed about two related things. One is the sense that legal decisions are being driven to an exceptional degree by politics." The Justice Department, disregarding the views of career lawyers, has taken extreme positions—for example, that the White House could refuse to provide any evidence in the impeachment hearings, and that neither the House of Representatives nor the Manhattan district attorney can subpoena Trump's personal financial records. The other cause of distress, the lawyer said, is Barr's willingness to attack his own people, joining Trump in accusing government officials of conspiring against the president.

Even far afield from Washington, morale has suffered. A federal prosecutor in the middle of the country told me that he and his colleagues can no longer count on their leaders to protect them from unfair accusations or political meddling. Any case with a hint of political risk is considered untouchable. The White House's agenda is driving more and more cases, especially those related to immigration. And there's a palpable fear of retaliation for any whiff of criticism. Prosecutors worry that Trump's attacks on law enforcement are having a corrosive effect in courtrooms, because jurors no longer trust FBI agents or other government officers serving as witnesses.

As a result, many of the prosecutor's colleagues are thinking of leaving government service. "I hear a lot of people say, 'If there's a second term, there's no possible way I can wait it out for another four.' A lot of people feared how bad it could be, but we had no idea it would be this bad. It's hard to weather that storm." What keeps this prosecutor from leaving is a commitment to his cases, to the department's mission, and to the thought "not so much that you could make a difference in this administration, because that doesn't seem possible anymore, but so you can be here in place when what we think will be a need to rebuild comes."

When Trump launched his campaign, he was suspected of seeking only to enrich himself. The point of the presidency was more high-paying guests at the Trump International Hotel, down the street from the White House. If Trump's tax returns and financial records are ever made public, we'll know just how much the presidency was worth to him.

But Trump's ambitions have swelled since the election. He hasn't crushed the independence of the Justice Department simply to be able to squeeze more money out of his businesses. Financial self-interest "is why he ran," Fred Wertheimer, of Democracy 21, says. "But power is a drug. Power is an addiction—exercising power, flying around in Air Force One, having motorcades, having people salute you. He thinks he is the country."

5.

"NO STATEMENT"

As a candidate, Trump learned that a foreign country can provide potent help in subverting an American election. As president, he has the entire national-security bureaucracy under his command, but he needed several years to find its weak spot—to figure out that the State Department could be as corruptible as Justice, and as useful to his hold on power.

When Mike Pompeo took over as secretary of state, in April 2018, the State Department was already ailing. Diplomacy has been an atrophying muscle of American power for several decades, and the status of Foreign Service officers has steadily diminished. In the mid-1970s, 60 percent of the positions at the level of assistant secretary and above were filled by career officials. By the time of the Obama administration, the figure was down to 30 percent, while ambassadorships had become a common way for presidents to thank big donors. "This wasn't invented in the beginning of 2017 with this administration," William Burns, a deputy secretary of state under Obama, told me. "Unqualified political appointees have been with us long before Donald Trump. As in so many areas, what he's done is accelerated that problem and made it a lot worse."

Rex Tillerson, Trump's first secretary of state, bled the department dry. To purge it of bloat, he tried to gut the budget, froze hiring, and pushed out a large cadre of senior diplomats. Offices and hallways in the headquarters on C Street grew deserted. When Pompeo became secretary, he promised to restore "swagger" to diplomacy. He ended the hiring freeze, promoted career officials, and began to fill empty positions at the top—but he brought in mostly political appointees. According to Ronald Neumann, a retired career ambassador who is now the president of the American Academy of Diplomacy, the politicization of the State Department represents "the destruction of a 100-year effort, from Teddy Roosevelt on, to build professional government separate from the spoils system." The destruction, Neumann told me, is a "deliberate process, based on the belief that the federal government is hostile, and now you have to put in loyal people across the board in senior positions to control the bastards—the career bureaucrats. In the past it has been primarily a frustration that the bureaucracy is sclerotic, that it is not agile. But it was not about loyalty, and that's what it's about now."

Under Pompeo, 42 percent of ambassadors are political appointees, an all-time high (before the Trump presidency the number was about 30 percent). They "are chosen for their loyalty to Trump," Elizabeth Jones, a retired career ambassador, told me. "They've learned that the only way to succeed is to be 100 percent loyal, 1,000 percent. The idea that you're out there to work for the American people is an alien idea." Of the department's positions at the level of assistant secretary and above, only 8 percent are held by career officials, and only one Foreign Service officer has been confirmed by the Senate to a senior position since Trump took office—the others are in acting positions, a way for the administration to sap the independence of its senior officials. Many mid-level diplomats now look for posts outside Washington, in foreign countries that the president is unlikely to tweet about.

The story of how the first family, Rudy Giuliani, his two former business associates, a pair of discredited Ukrainian prosecutors, and the right-wing media orchestrated a smear campaign to force Ambassador Marie Yovanovitch out of her post in Kyiv because she stood in the way of their corrupt schemes has become famous as the origin of Trump's impeachment. The story of how Yovanovitch's colleagues in the State Department responded to the crisis is less well known. It reveals the full range of behavior among officials under unprecedented pressure from the top. It shows how an agency with a long, proud history can be hollowed out and broken by its own leaders.

Tom Malinowski, a Democratic congressman from New Jersey and former State Department official, was born in Communist Poland to a family that had lived through World War II. "I've often asked myself the alternative-history question of what might happen if the Nazis took over America," he told me. "Who would become, out of opportunism or maybe even shared outlook, one of them? Some people would. Most people would keep their head down. Some number of people would be courageous and do useful things. A smaller number would do recklessly useful things. And then some number, hopefully also small, would take advantage of the situation to help themselves."

Masha Yovanovitch, like Andy McCabe, had no public profile but was widely respected among colleagues. She joined the Foreign Service in 1986, when she was 28 years old, and rose through the ranks of the State Department to become the U.S. ambassador to Kyrgyzstan, then Armenia, and then, in 2016, Ukraine. At the embassy in Kyiv she became known as a dedicated fighter of the corruption rampant among Ukrainian political and business leaders. And, as with McCabe, her professionalism left her vulnerable when a gang of thugs set out to destroy her career. Corruption, the theme of her work in Ukraine, was also the theme of its abrupt end. "You're going to think that I'm incredibly naive," she told the House during her testimony, "but I couldn't imagine all the things that have happened."

TRUMP NEEDED SEVERAL YEARS TO FIGURE OUT THAT THE STATE DEPARTMENT COULD BE AS CORRUPTIBLE AS THE JUSTICE DEPARTMENT, AND AS USEFUL TO HIS HOLD ON POWER.

In early March 2019, David Hale, the undersecretary of state for political affairs, paid a visit to the embassy in Kyiv. He asked Yovanovitch, who planned to end her tour that summer and then retire, to stay another year. With Ukrainian elections coming up, the embassy couldn't afford to be temporarily leaderless. She thought about it overnight and agreed.

Two weeks later, on March 20, *The Hill*, a Washington newspaper, published an interview with Yuriy Lutsenko, one of the dirty Ukrainian prosecutors who had been thwarted by Yovanovitch. Lutsenko accused her of trying to stop legitimate prosecutions. The article also reported that the ambassador was heard to have openly criticized Trump. The president retweeted the story, which was composed almost entirely of lies. It was followed by several more articles filled with conspiracy theories about Ukraine's interference in the 2016 election on behalf of Hillary Clinton. The reporter, John Solomon (who stands by his stories), was getting his information from Giuliani and his associates. Solomon had come to *The Hill* from *Circa News*, a right-wing site that had published an identical falsehood about McCabe—that he had openly trashed Trump in a meeting—two years earlier. The Russia and Ukraine scandals are best understood as a single web of corruption and abuse of office, and Solomon is one of many strands connecting them.

Another is Joseph diGenova, a right-wing Washington lawyer, former appointee of Barr, and friend of Giuliani's who had asserted in 2016 that FBI agents were furious with James Comey for closing the Clinton investigation. On the same day the first *Hill* story about Yovanovitch was published, diGenova appeared on Sean Hannity's Fox News show and said that Yovanovitch "has bad-mouthed the president of the United States to Ukrainian officials and has told them not to listen or worry about Trump policy because he's going to be impeached. This woman needs to be called home to the United States—" "Oh, immediately," Hannity interjected. Two nights later, Laura Ingraham repeated the story on her show. Victoria Toensing, diGenova's law partner (and wife) and a frequent Fox News guest, texted one of Giuliani's cronies: "Is the Wicket [*sic*] Witch gone?" On March 24, in a tweet, Donald Trump Jr. called Yovanovitch a "joker."

The State Department called *The Hill*'s original story a "complete fabrication." But as the lies spread among conservative media, triggering a barrage of attacks, Yovanovitch found herself in a crisis. Hale, the department's No. 3 and its senior career diplomat, sent an email to two colleagues: "I believe Masha should deny on the record saying anything disrespectful and reaffirm her loyalty as Ambassador and FSO to POTUS and Constitution." Gordon Sondland, a Trump donor who, with no relevant experience, had been made ambassador to the European Union, gave her the same advice directly. "Tweet out there that you support the president, and that all these are lies," Yovanovitch recounted him saying during her impeachment testimony. "You know the sorts of things that he likes. Go out there battling aggressively and praise him."

Yovanovitch felt that she couldn't do it. Like Erica Newland, she had taken an oath to defend the Constitution, not the president. Instead of tweeting allegiance to Trump, Yovanovitch recorded a public service announcement urging Ukrainians to vote in that country's upcoming presidential election. She tried to connect this civic duty to her role as a nonpartisan government official. "Diplomats like me make a pledge to serve whomever the American people, our fellow citizens, choose," she told the camera. Presidents Bush and Obama had both appointed her to ambassadorships, "and I promote and carry out the policies of President Trump and his administration. This is one of the marks of a true democracy."

Whatever impression this civics lesson made on Ukrainians, it did nothing to stop the vicious campaign against her back home. The United States was no longer the democracy that American diplomats hold up as a model to foreigners.

On March 24, unable to function in her post, Yovanovitch wrote a desperate email to David Hale. She asked for a statement from the secretary of state saying that she had his full confidence, that she spoke for the president and the country. Hale called Yovanovitch that afternoon and asked her to put her concerns in writing. She sent a longer email, describing the figures who were attacking her—including Giuliani and Lutsenko—and attempting to interpret their motives.

The next day, at a weekly meeting of senior officials in the secretary's office, Hale brought up Yovanovitch's request. Pompeo was confronted with a dilemma—stand up for his people or appease the White House. He solved it by punting, saying that no statement would be made on her behalf until Giuliani, Hannity, and others were asked for their evidence. Later that week Hale sent word to the European bureau: "No statement."

Yovanovitch herself never got an answer from Hale. "Basically, we moved on," Hale said during his testimony at the impeachment inquiry. "For whatever reason, we stopped working on that—at least, I stopped working on that issue. I was not involved in doing it, so I wasn't paying a great deal of attention to it." Expressing support for Yovanovitch might have made things worse, he noted. "One point of view was that it might even provoke a public reaction from the president himself about the ambassador."

A couple of bureaucratic levels below Hale, George Kent, the deputy assistant secretary of state for Europe, was fighting on behalf of the besieged ambassador. Kent had been her second in command at the embassy in Kyiv, where corruption had been his major focus. He knew all the Ukrainian players involved in the campaign against her, and he was outraged by the slanders, which had begun to tar his name as well. He had strengthened the original State Department response to the first *Hill* article, inserting the phrase *complete fabrication*, and when the attacks intensified he told Hale that the department needed to stand behind Yovanovitch. He spoke up despite his vulnerable status as a mid-level officer in line for a promotion to a senior position.

"Moments like this test people; they bring out one's true character," said Malinowski, who, as a member of the House Foreign Affairs Committee, heard days of testimony from ex-colleagues during the impeachment inquiry. "In normal times, it's hard to know who would do what under those circumstances." Kent's first impulse was to prevent American policy from being corrupted in Kyiv and Washington. Hale, in a more powerful job, put bureaucratic hierarchy and his own secure place in it first. As a result, Yovanovitch had no one to press the urgency of her case with her leadership.

"I believe moral courage is more difficult than physical courage," Ronald Neumann, the retired ambassador, told me. "I was an infantry officer in Vietnam. Some courageous officers on the battlefield became very cautious bureaucrats." Physical courage in battle is made easier by speed, adrenaline, comrades. "Moral courage—you have, in many cases, lots of time, it's a solitary act," he said. "You are fully aware of potential repercussions to your career, and it's harder. It shouldn't be harder—you're not going to get killed—but that's the way it is."

Things quieted down for a few weeks. On April 21 Volodymyr Zelensky, who ran on an anti-corruption platform, was elected president of Ukraine in a landslide. Right away, the White House let Pompeo know that Trump wanted Yovanovitch gone. The media storm kicked up again. On the evening of April 24, Yovanovitch hosted an embassy event to honor a young Ukrainian woman, an anti-corruption activist who had died after a sulfuric-acid attack and whose murder remained unsolved. After midnight, a call came in from the State Department: Yovanovitch was to get on the next plane home. She asked for a reason but was given none, other than concern for her security.

She was back in Washington on April 26. That was the day Pompeo, with great fanfare, unveiled his "Ethos" initiative, which included a new mission statement that the secretary himself recited before hundreds of Foreign Service officers: "I am a champion of American diplomacy … I act with uncompromising personal and professional integrity. I take ownership of and responsibility for my actions and decisions. And I show unstinting respect in word and deed for my colleagues and all who serve alongside me." Pompeo didn't meet with his ambassador to Ukraine after summarily recalling her, or ever again, nor did he say a public word on her behalf. Other officials told Yovanovitch that she had done nothing wrong but had somehow "lost the confidence of the president." The department found her a temporary teaching post at Georgetown, but her career as a diplomat was over.

MORE THAN 1,000 SCIENTISTS HAVE LEFT THE ENVIRONMENTAL PROTECTION AGENCY, THE DEPARTMENT OF AGRICULTURE, AND OTHER AGENCIES.

"I, on a personal level, felt awful for her," Kent told the impeachment inquiry, "because it was within two months of us asking her—the undersecretary of state asking her—to stay another year." When, in late May, Giuliani resumed his campaign of lies, telling Ukrainian journalists that Yovanovitch and Kent were part of a plot against Trump led by George Soros, there was no rebuttal from the State Department. Hale sent word that Kent should keep his head down and lower his profile on Ukraine. Kent canceled several scheduled appearances at Washington think tanks.

By then America's Ukraine policy had fallen out of the regular State Department channels and into the hands of the "three amigos"—Ambassadors Gordon Sondland and Kurt Volker and Energy Secretary Rick Perry. Volker, the special envoy to Ukraine, wanted to arrange a meeting between Zelensky and Trump, and in July he told Kent that he was going to see Giuliani to discuss

Ukrainian investigations of former Vice President Joe Biden's family and the 2016 election. Kent later said that when he asked Volker why he would do that, Volker replied, "If there's nothing there, what does it matter? And if there is something there, it should be investigated." Kent told him, "Asking another country to investigate a prosecution for political reasons undermines our advocacy of the rule of law." But if this principle had ever had currency in the Trump administration, it no longer did.

On July 25, after Ukraine's parliamentary elections, Trump called Zelensky and asked for "a favor"—an investigation of the Bidens that was tantamount to Ukrainian interference in the U.S. presidential campaign in exchange for the release of American military aid and a personal meeting in the Oval Office. A day or two later, Kent heard about the call from Lieutenant Colonel Alexander Vindman, the top Ukraine expert in the White House, who had been among those—including Pompeo—listening in. Vindman told Kent that Trump had called Yovanovitch "bad news," and that the conversation had gone into highly sensitive matters—so sensitive that Vindman couldn't share them with his colleague. Kent didn't try to learn more. For all his outspokenness in Yovanovitch's defense, Kent wasn't the type of official who wanted "to be in the middle of everything." In his impeachment testimony, he never mentioned writing a dissenting cable, or speaking to the inspector general. He carefully avoided the media.

The professional code of Foreign Service officers nearly kept the story of Trump's attempted shakedown of Zelensky a secret. "It's not in their DNA" to go public, Tom Malinowski said. Only one bureaucrat—the whistle-blower—made it possible for the American people to find out about the quid pro quo. The complaint surfaced on September 9, just days before Zelensky was scheduled to meet CNN's Fareed Zakaria to discuss an interview, during which he likely would have announced the investigations that Trump wanted.

On September 25, the White House released a rough transcript of the July 25 call. In it, Trump said that "the former ambassador from the United States, the woman, was bad news" and "she's going to go through some things." During the impeachment inquiry Hale explained, in high bureaucratese, "That was not an operational comment that had been operationalized in any way."

At the State Department, Ambassador Michael McKinley read the transcript and had a visceral, almost physical reaction: He was appalled. McKinley was Pompeo's senior adviser, having been brought back from his post in Brazil to serve as a link between the secretary and the Foreign Service. He and Hale were the only career officers among the department's leadership, but he never made it into the secretary's inner circle of political appointees, which included Pompeo's former business partners. Until September 25, McKinley hadn't paid enough attention to connect the dots of the Ukraine story. Now he found that Trump's words spoke for themselves.

The next day, McKinley picked up where Kent had left off the previous spring. According to his impeachment testimony, he went to see Pompeo and asked, "Wouldn't it be good to put out a statement on Yovanovitch?" Pompeo listened, and then he said, "Thank you." The conversation lasted about three minutes.

In the last days of September, McKinley kept pushing for a statement praising Yovanovitch's professionalism and courage. He heard from eight or 10 colleagues that the State Department's silence in the face of an ugly presidential attack was demoralizing. On September 28 he emailed five senior colleagues, including Hale, insisting that the department needed to say something. Four wrote back agreeing. Hale didn't reply; he told a colleague that he didn't think McKinley's effort would go anywhere. A few hours later Pompeo's spokesperson informed McKinley that, in order to protect Yovanovitch from undue attention, the secretary would not release a statement.

The next day, a Sunday, McKinley told his wife that, after 37 years in the Foreign Service, he had to get out right away. Though he never spoke publicly until he was subpoenaed to appear before the House during the impeachment inquiry, his departure was so sudden that it had the quality of a resignation in protest. Pompeo, known in the department for his temper and bullying, spent 20 minutes on the phone from Europe with McKinley and gave him a tough time. Later, the secretary lied in an interview with ABC, saying that McKinley could have come to see him about Yovanovitch anytime but never had.

Before leaving, McKinley paid a visit to Hale and told him, one Foreign Service officer to another, that the department's silence was having a terrible effect on morale. Hale flatly disagreed—he asserted that morale was high. Afterward, Hale met with Pompeo and identified a different threat to morale—McKinley's negativity.

"I was flying solo," McKinley told the House during the impeachment inquiry. "I didn't know what the rules of engagement were. But I did know that, as a Foreign Service officer, I would be feeling pretty alone at this point." So he got in touch with Yovanovitch, whom he knew, and with Kent, whom he didn't. McKinley wanted to find out how they were doing. He was surprised to learn that he was the first senior official to contact them about the transcript of the Ukraine call. Kent was picking apples with his wife in Virginia when McKinley reached him. Afterward, he had to Google McKinley to find out who he was. "He appeared to me … to be a genuinely decent person who was concerned about what was happening," Kent said in his impeachment testimony.

In early October, after House committees issued subpoenas for documents and scheduled depositions, the State Department ordered its personnel not to cooperate. Pompeo sent a letter to Congress calling the requests "an attempt to intimidate, bully, and treat improperly the distinguished professionals of the Department of State." He also said publicly that Congress had prevented Foreign Service officers from talking to the department's lawyers, which wasn't true—the lawyers wouldn't talk to Kent, who had received a subpoena and was willing to testify. Kent felt bullied not by Congress, but by his own agency.

On October 3, the State Department's European bureau met to discuss how to respond to the subpoenas. When Kent noted that the department was being unresponsive to Congress, a department lawyer raised his voice at Kent in front of 15 colleagues, then called him into the hall to yell some more. He was putting Kent on notice not to cooperate. Kent wrote a memo about the encounter, which he gave to McKinley, who sent it to Hale and others … and then the memo disappeared into the files with all the other documents that the department refused to turn over to Congress.

The career people testified anyway. None of them had ever received this kind of public scrutiny. Some were being regularly attacked by name on social media and right-wing websites. All of them were facing steep lawyers' bills. (Former colleagues set up a legal fund and raised several hundred thousand dollars.) Pompeo and his State Department continued to say nothing in their defense. But one after another they came forward. Marie Yovanovitch, whose mother had just died, didn't lose her composure when Representative Adam Schiff read aloud a nasty tweet Trump had just written about her. George Kent testified in a bow tie and matching pocket square like a throwback from an era of great diplomacy, saying with a wry smile, "You can't promote principled anti-corruption action without pissing off corrupt people." David Hale, pale and terse, also testified. Toward the end of his testimony, Democratic Representative Denny Heck of Washington begged Hale to say that Yovanovitch was a courageous patriot and that what had happened to her was wrong. Hale's voice faltered as he replied, "I believe that she should have been able to stay at post and continue to do the outstanding work—"

FOUR YEARS
OF TRUMP IS
AN EMERGENCY.
EIGHT YEARS
IS A PERMANENT
CONDITION.

Heck wasn't having it. "What happened to her was *wrong*?"

"That's right," Hale said.

"Thank you for clarifying the record. Because I wasn't sure where it was that she could go to set the record straight if it wasn't you, sir, or where she could go to get her good name and reputation back if it wasn't you, sir."

Tom Malinowski, listening to his former colleagues, thought that their testimony said something about what has happened to the State Department. "There's a lot of pent-up anger and trauma, and this was an outlet for the institution," he said. "These men and women were speaking for their colleagues about more than just what happened with Ukraine."

Bureaucrats never received such public praise as they did during the weeks of the impeachment inquiry. But the hearings left a misleading impression. The Ukraine story, like the Russia story before it, did not represent a morality tale in which truth and honor stood up to calumny and corruption and prevailed. Yovanovitch is gone, and so is her replacement, William Taylor Jr., and so are McKinley and others—Lieutenant Colonel Vindman was marched out of the White House in early February—while Pompeo is still there and, above him, so is the president. Trump is winning.

In his fourth year in power, Trump has largely succeeded in making the executive branch work on his personal behalf. He hasn't done it by figuring out how to operate the bureaucratic levers of power, or by installing leaders with a vision of policy that he shares, or by channeling a popular groundswell into government action. He's done it by punishing perceived enemies, co-opting craven allies, and driving out career officials of competence and integrity. The result is a thin layer of political loyalists on top of a cowed bureaucracy.

Justice and State were obvious targets for Trump, but the rest of the executive branch is being similarly, if more quietly, bent to his will. One of every 14 political appointees in the Trump administration is a lobbyist; they largely run domestic policy. Trump's biggest donors now have easy access to agency heads and to the president himself, as they swell his reelection coffers. In the last quarter of 2019, while being impeached, Trump raised nearly $50 million. His corruption of power, unprecedented in recent American history, only compounds the money corruption that first created the swamp.

Within the federal government, career officials are weighing outside job opportunities against their pension plans and their commitment to their oaths. More than 1,000 scientists have left the Environmental Protection Agency, the Department of Agriculture, and other agencies, according to *The Washington Post*. Almost 80 percent of employees at the National Institute of Food and Agriculture have quit. The Labor Department has made deep cuts in the number of safety inspectors, and worker deaths nationwide have increased dramatically, while recalls of unsafe consumer products have dropped off. When passing laws and changing regulations prove onerous, the Trump administration simply guts the government of expertise so that basic functions wither away, the well-connected feed on the remains, and the survivors keep their heads down, until the day comes when they face the same choice as McCabe and Yovanovitch: do Trump's dirty work or be destroyed.

Four years is an emergency. Eight years is a permanent condition. "Things can hold together to the end of the first term, but after that, things fall apart," Malinowski said. "People start leaving in droves. It's one thing to commit four years of your life to the institution in the hope that you can be there for its restoration. It's another to commit eight years. I can't even wrap my head around what that would be like."

George Packer is an Atlantic *staff writer and the author, most recently, of* Our Man: Richard Holbrooke and the End of the American Century.

ALL SIZES ONE PRICE

FAWN
UP TO 52″ WAIST
5 LENGTHS
GRAPHITE
KHAKI BROWN
FRENCH NAVY

HALF PRICE

now from **$22**

Cotton TRADERS

Best of
British style
since 1987

FREE SHIPPING
On purchases over $79 or more

> “I truly enjoy the quality and comfort of my new pants. They fit perfectly and are super soft and enjoyable to wear. I'm coming back for more!”
> **Jozef, California**

• 100% COTTON • UP TO 52″ INCH WAIST

ELASTIC WAIST SHORTS AND PANTS

- **Smart-casual pleat front**
- **Side elastic for added comfort**
- **Zip fly with button at waist**
- **Pants with 5 leg lengths, or shorts**

Machine Washable 100% Cotton
Imported
Fawn Fern Green Graphite
Khaki Brown French Navy

ELASTIC WAIST SHORTS

~~$44~~ **$22** **SAVE $22**
Sizes 32-52
8.5″ (22cm) inside leg
AF10029 OXU

ELASTIC WAIST PANTS

~~$54~~ **$27** **SAVE $27**
Sizes 32-52
27″ (68.5cm) inside leg **AC10773 OXU**
29″ (74cm) inside leg **AC10038 OXU**
31″ (79cm) inside leg **AC10039 OXU**
Sizes 32-48
33″ (84cm) inside leg **AC10040 OXU**
Sizes 34-48
35″ (89cm) inside leg **AC10041 OXU**

HALF PRICE shipping only $4.50 –
LIMITED TIME

FREE RETURNS* WITH **PayPal**
See website for more information on our simple, local returns service

order today at **us.cottontraders.com**
or call toll **FREE 1-855-246-3333**

90 DAY MONEY BACK GUARANTEE IF NOT COMPLETELY SATISFIED

PLEASE USE THIS CODE TO CLAIM YOUR OFFER
DF2U

Terms & conditions: Offer ends 07/26/2020. $4.50 shipping offer available for a limited time only. We aim to deliver within 10 working days from dispatch, stock subject to availability. Full T&C's at us.cottontraders.com.

Culture & Critics

OMNIVORE

The Reigning Master of Family Drama

Hirokazu Kore-eda's latest film, his first set outside of Japan, showcases the great director's signature theme.

By Terrence Rafferty

Hirokazu Kore-eda's new film, *The Truth*, ends as many of his films do, with a group of people walking. Some of them are related; some are not. Some know exactly where they're going and why; others are just tagging along, enjoying the exercise and the company. The person who seems most determined, surest of what she's doing, is a septuagenarian movie star named Fabienne (Catherine Deneuve), in whose wake the others appear to follow. She's on her way to a film studio to reshoot an emotional scene that she feels she didn't get right the day before—though everyone else thought it marvelous—because her real life has intervened. The previous night, at the end of a long, cathartic heart-to-heart with her daughter, Lumir (Juliette Binoche), Fabienne suddenly sat up straight and blurted out, "Why didn't I play it like this? Why didn't I think of it!" And in that moment, this great French actor expresses the essential subject of this great Japanese director's art: people wondering how to play their lives, and why they can't seem to get it right the first time.

Kore-eda has been writing and directing gorgeous, slyly challenging dramatic features in his native Japan since the 1990s, winning awards at festivals all over the world without gaining much of a following among U.S. moviegoers. His profile has risen lately, since his 13th dramatic feature, *Shoplifters*, won the Palme d'Or at the 2018 Cannes festival and was nominated last year for an Oscar for Best Foreign Language Film. That wrenching movie, about a makeshift family living on the margins of society, didn't play in a lot of the big American multiplexes—these days, almost no foreign films do.

But those who managed to see it in a theater or found it on Amazon or Hulu were moved by its vibrant lower-depths

ILLUSTRATION BY MANSHEN LO

realism, its surprising humor, and what might be called its moral grace. Some viewers might have sought out his earlier work and discovered other, equally affecting family dramas such as *Maborosi* (1995), *Nobody Knows* (2004), *Still Walking* (2008), *I Wish* (2011), *Our Little Sister* (2015), and *After the Storm* (2016). *The Truth*, though it's set in France in a culturally rarefied milieu that Kore-eda has never shown the slightest interest in before, is very much of a piece with the movies he's made in his own land and language. He's not an artist who loses his identity when he's away from home.

And that, I think, is because the idea of home and the twisty paradoxes of identity are the subjects he's been exploring for his entire career. At this strange moment in history, with so many people (voluntarily or not) far from home, and seemingly every nation in the grip of an identity crisis, Kore-eda's research could be of some use. Near the end of the beautiful *After the Storm*, a serious boy asks his father, "Are you who you wanted to be?" The dad, Ryota (Hiroshi Abe), who sees his son only once a month and has never been a paragon of responsibility, ruefully replies, "I'm not who I want to be yet." (He's in his late 30s or thereabouts.) Then, after a thoughtful pause, he says, "What matters is to live my life trying to become what I want to be."

In the world of Kore-eda's films, a tried-on identity can, over time, turn into the genuine article.

As in all of Kore-eda's films, the simple statement's weight comes from the accumulation of ordinary moments that have preceded it. Through that quotidian stuff, the movie shows us exactly why Ryota says what he says to his son: He has a growing sense that he is helplessly turning into his own late and fiercely unreliable father; he's painfully conscious of his failure to write a second novel after a prizewinning first; and he's recently been shocked by his ex-wife's accusation that he only *acts* like a real father. He does, as it happens, love the boy, and now, approaching middle age, he wants to become the part he's been playing. And in the world of Kore-eda's films, a tried-on identity can, over time, turn into the genuine article. Actors know that. So do children when they're playing—pretending hard, as if they could imagine themselves into what they want to be. Becoming who you're going to be begins, for all of us, as play but ends as work: doing take after take after take until it feels right, feels like yourself.

CHILDREN ARE often right at the center of Kore-eda's dramatic films, and usually, like Ryota's pensive son, they're trying furiously to figure out the peculiar worlds they live in, and what roles they'll need to play to survive in them. In *I Wish*, which is Kore-eda's funniest movie, a pair of brothers perform some pretty strenuous magical thinking in an attempt to reunite their divorced parents. In *Nobody Knows*, which is his saddest, four siblings abandoned by their mother do their best to act like a real, intact family, with the eldest—12-year-old Akira—assuming the role of father. They're even further off the grid than the ragtag aggregation of *Shoplifters*, yet they make of their grim situation, for a while, a reasonable facsimile of normality.

Kore-eda doesn't romanticize childhood as Wordsworth did, but he clearly sees it as a crucial time, as a sort of laboratory of identity. He respects children, not out of some reverence for their innocence, or because they are—as speechmakers never tire of reminding us—"our future," but because they're *interesting*. That's why he's the best director of kids since François Truffaut; he understands that they're natural actors, that making believe is what they do and how they grow.

That growth is a slow process, of course. But Kore-eda is fascinated by process, and he has no problem with slow. The rhythms of his films are more deliberate than many viewers are accustomed to. (He's the sole credited editor on all his dramatic films save his first, *Maborosi*.) There's a lot of walking around in his pictures; a good deal of talking about, preparing, and eating food; and a pervasive low-level sense of expectation—of people waiting for something, keeping alert for it as they go through their daily routines. Kore-eda, who started out making documentaries for Japanese television, watches and waits along with his characters, strolling with them, taking his sweet time.

Then, when time is running out, his people get a little desperate. While the kids play, the grown-ups brood and fret, and those nearing the end of life grow melancholy or bitter. The elderly parents in *Still Walking* are fearsomely unpleasant: the father grumpy and unyielding, the mother a monster of passive-aggression. Fabienne, in *The Truth*, is a world-class passive-aggressor too. For all her success, she is a restless, unhappy woman. She can't help giving everyone around her—her daughter, her son-in-law (Ethan Hawke), her staff, the film crew—the feeling that somehow they're letting her down. Her tea, whoever serves it, is never the right temperature.

Ryota's widowed mother, in *After the Storm*, is kinder, more self-effacing, but prone to attacks of ruefulness. At one point late in the film, as her son, grandson, and former daughter-in-law take shelter in her apartment from a howling typhoon, she muses quietly, "I really just can't understand why things turned out like this." You feel, in that heartbreaking moment, her deep sense of too-lateness, her regret that few discoveries about her life or herself are left to be made.

FOR KORE-EDA, the direst affliction a human being can have is the feeling that one's identity is *settled*, that the rest of the story is simply unspooling, of its own momentum, toward an inevitable ending. That's like living in a state of permanent denouement. As a storyteller, Kore-eda doesn't traffic much in denouements or, for that matter, climaxes. What he cares about is how we move a little farther toward ourselves, take a few more halting steps forward. In the whimsical *After Life* (1998), he even allows himself to fantasize that the process goes on, at least for a while, after death. In that film, the newly deceased are required, as a condition of admission to heaven, to select a single memory from their earthly lives to hold on to for eternity. Naturally, he's interested not in heaven per se, but in how the dead might imagine an afterlife of their own choosing, a story of who they were when they were most themselves.

In his 1996 documentary, *Without Memory*, Kore-eda tells the story of a man named Hiroshi Sekine who has a neurological condition called Wernicke-Korsakoff syndrome and is unable to retain the memories of recent experiences. He can remember his life prior to the onset of the disorder, but next to nothing of what he did a day or even an hour before. "If I'm really here, inside this flow of time," Sekine says, "if I really exist or not, I just don't know." Everything is new to him, all the time. His life is a perpetual reinvention. He's an extreme case, in other words, of the qualities that draw Kore-eda to children and, in his latest film, to actors—to those dedicated to the constant reimagining of experience, to endless revisions of the self. The trick, for his fictional characters, is to do what the real-life subject of *Without Memory* cannot: to find a sense of continuity in the chaos.

His movies don't presume to tell us how to do that trick—only that it has to be done, somehow. A lovely moment arrives near the end of *The Truth* when Fabienne's little granddaughter, Charlotte (Clémentine Grenier), tells her grandma quite earnestly that she'd like to be an actress too, when she grows up. Fabienne is visibly moved by this demonstration of generational continuity, which apparently skipped her daughter (who was "lousy" in her school play, and became a writer instead). She might be even more pleased to know, as the audience learns soon after, that Charlotte is *already* an actress: The child was playing a scene scripted for her by her mother, and playing it to perfection.

"True" or not, Charlotte's declaration seems to do Fabienne a world of good. It puts a spring in her step as she marches with her entourage to reshoot her own scene. This filmmaker constructs his stories so that they arrive not at a clear resolution but at witty, paradoxical moments like this one. He never leaves us unsatisfied, though. For those of us who are trying to understand why things turned out like this—most of the current human residents of Earth, these days—Kore-eda offers, as he always has, sound advice: Keep imagining, keep playing, and, most of all, keep walking. *A*

Terrence Rafferty is the author of The Thing Happens, *a collection of writings about movies.*

A Sight

By Billy Collins

Last night I watched a documentary on war,
and the part I carry with me today
was the spectacle of a line
of maybe 20 blinded soldiers
being led, single-file,
away from a yellow cloud of gas.

That must be what accounts
for this morning's brightness—
sunlight slathered over everything
from the royal palms to the store awnings,
from the blue Corolla at the curb
to a purple flower climbing a fence,
one gift of sight after another.

I couldn't see their bandaged faces,
but each man had one hand
resting on the shoulder
of the man in front of him
so that every man was guiding
and being guided at the same time,
and in the same tempo,
given the unison of their small, cautious steps.

Billy Collins is a former U.S. and New York State poet laureate. His new collection, Whale Day, *will be published in September.*

DC-3
1937
26
DC 3
0001

THE DC-3 CLASSIC
MEN'S WATCH

MULTI-FUNCTION CHRONOGRAPH WITH 2 SUB DIALS AND STOP WATCH FUNCTION

IMAGE OF DC-3 PLANE ON WATCH FACE

GENUINE LEATHER STRAP

PREMIUM GRADE STAINLESS STEEL CASE BACK ETCHED WITH DC-3 AND IMAGE OF THE PLANE

FOR THOSE OF YOU WHO JUST MIGHT CHANGE THE WORLD

The DC-3 airliner will go down in history as the plane that gave passengers their first transcontinental flights, and changing the face of travel forever. Now you can wear a custom collector's watch that is destined to become as popular as the aircraft that inspired it—*"THE DC-3 CLASSIC" Men's Watch*.

INNOVATIVE DESIGN AND THE BOLD DETAILS OF A CLASSIC

This distinctive multi-functional watch features a vintage white dial adorned with an image of the plane along with "DC-3" and "1937", the year the aircraft first went into service. The solid stainless steel case back also features an image of the plane and *DC-3*. Numerals are in contrasting black as are the two sub dials indicating minutes and seconds. Special functions include a chronograph with a stop watch feature and a date display at the 6:00 marker. A genuine leather strap completes the classic look. This quality timepiece has a precision quartz movement and a quartz mineral lens... and it is backed by a full-year limited warranty and our unconditional, money-back, 120-day guarantee.

COLLECTOR'S EDITION - LIMITED TO 5000!

This hand-crafted collector's watch is a remarkable value at $179.99*, payable in 5 installments of $36.00. The watch arrives in a custom case along with a Certificate of Authenticity. Send no money now, just return the Priority Reservation below. **This is a limited edition watch—only 5,000 will ever be made!** So don't miss out—order today!

A CUSTOM-CRAFTED WATCH DESIGN
FROM THE BRADFORD EXCHANGE

Order today at bradfordexchange.com/25429

©2020 The Bradford Exchange 01-25429-001-BIPR

LIMITED-TIME OFFER

Reservations will be accepted on a ***first-come, first-served basis****. Respond as soon as possible to reserve your watch.*

PRIORITY RESERVATION **SEND NO MONEY NOW**

THE BRADFORD EXCHANGE
JEWELRY
9345 Milwaukee Avenue · Niles, IL 60714-1393

YES. Please reserve the **"DC-3 Classic®" Men's Watch** for me as described in this announcement.

*Plus $15 shipping and service. Please allow 4-6 weeks for delivery of your jewelry after we receive your initial deposit. Sales subject to product availability and credit approval.

Signature

Mrs. Mr. Ms.
Name (Please Print Clearly)

Address

City State Zip

E-Mail (optional)

01-25429-001-E50081

BOOKS

Hilary Mantel Takes Thomas Cromwell Down

As the author's remarkable trilogy ends, her epic hero's self-mastery is newly in doubt.

By Judith Shulevitz

In the first two novels of her trilogy about Thomas Cromwell, *Wolf Hall* and *Bring Up the Bodies*, Hilary Mantel sings, as it were, the poem of his rise. This is Cromwell as epic hero. The son of a blacksmith and brewer from the hamlet of Putney, Cromwell has become both chief minister to King Henry VIII and the most powerful man in England aside from the king; some say he is more powerful than the king. Mantel's Cromwell is omniscient—he has spies everywhere—and omnicompetent. He excels at ironwork, the culinary arts, the cloth trade, finance, civil engineering, legislation, and diplomacy. His wit is quick and endearing, except when it's cutting. Above all, he plays Henry's court with consummate dexterity, always several moves ahead of potential opponents.

In *The Mirror & the Light*, which closes the trilogy, we witness Cromwell's fall. This is not a spoiler. You can Google his fate in eight seconds. Mantel's job is to make the inevitable suspenseful, which she does by turning her protagonist into a tragic hero. In tragedy, the hero is blind to how he brings about his own doom, either because of hubris or because the gods have willed his ignorance, or both. Cromwell has become almost cocky. He has taken risks before, but he always exhibited near-perfect self-mastery. His profession requires dealing with "grandees who, if they could, would destroy him with one vindictive swipe," Mantel writes in the middle novel. "Knowing this, he is distinguished by his courtesy [and] calmness." Now he allows himself treasonous thoughts: "It is I who tell [the king] who he can marry and unmarry and who he can marry next, and who and how to kill." And he records too-candid observations in a volume of advice for his protégés, "The Book Called Henry." Mantel makes us wonder: Does Cromwell have himself fully in hand? If not, why not? What strange forces drive him; does he understand them; and, most important, can he control them in time?

When we leave Cromwell at the end of *Bring Up the Bodies*, he has just destroyed a queen, doing maximal damage in the process. The king, having tired of his second wife, Anne Boleyn, and fallen in love with Jane Seymour, told Cromwell to deal with the situation. Cromwell did—he always does—but his methods were extreme. He choreographed the trials and convictions of Anne and her alleged lovers on either trumped-up or wildly exaggerated charges of adultery and incest. The public was treated to scenes of what can only be characterized as royal pornography, all of which turned on the theme of the king's sexual inadequacy. Five men, including Anne's brother, were beheaded. Cromwell plucked four of them out of the swirl of court gossip not because he thought they were guilty but to avenge his beloved late master, Cardinal Wolsey, who fell

ILLUSTRATION BY AARON MARIN

from power seven years earlier and whom the young men ridiculed for the court's amusement.

As *The Mirror & the Light* opens, Cromwell is back at the scene of the execution. Anne's body "swims in a pool of fluid crimson," and he seems his usual hearty self, thinking about his second breakfast. In the background, however, Mantel is darkening the mood. In the previous novel, Anne's attendants, veiled so as not to be tainted by association with her death, used their bodies to block the men approaching the corpse. "We do not want men to handle her," they said. Now the shrouded women are silent, stylized; they force the men back with palms upturned. They could be dancers in a Greek chorus, or the Furies.

Beneath his bluster, Cromwell feels uneasy. When Anne had climbed the scaffold a few moments earlier, he'd found himself admiring her poise. But now other men make crude remarks. These offend him—he who planted the filthy thoughts in their head. "I'd have put her on a dunghill," says Charles Brandon, the Duke of Suffolk. "And the brother underneath her." Cromwell berates Brandon for lacking mercy. "By God," says the duke, a rival. "You read me a lesson? I? A peer of the realm? And you, from the place where you come from?" Cromwell spits out: "I stand just where the king has put me." Then he asks himself, "Cromwell, what are you doing?" But he waves away his disquiet: "If you cannot speak truth at a beheading, when can you speak it?"

Thomas Cromwell, speaking truth to a man who could harm him? We weren't expecting that, and as will become clear, now is not the moment to be imprudent. *The Mirror & the Light* covers four years of Cromwell's life, from 1536 to 1540. He is at the peak of his career. The king has made him a baron and appointed him the lord keeper of the privy seal, an office that gives him even more access to the king. Henry has also let him hold on to the titles of master secretary and vicegerent, a powerful new position in the English Church. "It is a thing never seen before," says Queen Jane. "Lord Cromwell is the government, and the church as well." Cromwell does what he did earlier, a manic whirl of endeavors that include filling the king's coffers with revenue from monasteries confiscated from the Vatican and trying to reinforce England's independence from the pope. His "cause," as he calls it, is to publish a translation of the Bible. Everyone in the king's realm should be able to read the Bible in English—if only to see what isn't in it: popes, monks, counterfeit relics used by priests to fleece the poor.

Cromwell's main duty, as ever, is to keep the king happy. That entails managing Henry's volatile emotions: anxiety about begetting a legitimate male heir, shame at growing old and obese, eruptions of self-pity. For once, the king has no qualms about his queen, but Jane's tenure is, for Henry and his people, heartbreakingly brief. Cromwell soon has to scour Europe for a bride who both suits Henry's tastes and is willing to marry an aging, bloated monarch who cast off one queen and killed another. This is as difficult as it sounds.

Cromwell has other problems. A large rebellion has broken out in the north, but the casus belli is not Henry. It's him, Cromwell, with his low birth, antipapistry, and suspiciously Jewish-seeming aptitude for making money. The depth of the public's hatred makes him vulnerable. Is the king annoyed? Are his friends still his friends? Has the king understood Cromwell's commitment to the new evangelicalism (i.e., Protestantism)?

Another, more serious source of strain in the minister-king relationship is in danger of becoming apparent: Henry has grown bloodthirsty. Cromwell pleads for lives, but when he fails, he gets the blame. "The king never does an unpleasant thing," notes Queen Jane. "Lord Cromwell does it for him." Worse, he's having a hard time suppressing his disgust for Henry. Cromwell rehearses the catechism of sacred kingship, but elevated thoughts all too quickly turn gross. Contemplating the king as the embodiment of the state, which makes his very "piss and stool … the property of all England," Cromwell envisions Henry's doctors carrying away the bedpan of royal shit every morning. Cromwell's dislike bursts into the open when it seems possible that the king will return to the Church. "Even if Henry does turn, I will not turn," he tells a woman he considers an ally. "I am not too old to take a sword in my hand." This is the most disloyal statement Cromwell ever makes, and it will not be forgotten.

Cromwell's angle of vision on his late-medieval world is oddly familiar, even if his Tudor mores are alien. We can identify.

MANTEL HAS been praised for upending a centuries-old consensus that Cromwell was a man driven only by greed and lust for power. Partial credit for her revisionism goes to a historian named Geoffrey Elton, from whom Mantel takes her cues. Younger scholars have chipped away at Elton's reassessment, but Mantel stands by her source. Their Cromwell is a true evangelical, a great statesman, and an advocate of good governance. He laid the groundwork for the English Reformation, created the bureaucratic state, empowered Parliament, and fought for hospitals, poor laws, and a census, among other admirable causes.

But that's Cromwell the public figure. Mantel's challenge is to give him an inner life. In a *Paris Review* interview in 2015, six years after *Wolf Hall* was published, she described the moment he came into focus. She sat down to write, and out flowed the first paragraphs of the series. The boy Cromwell is being beaten nearly to death by his crazed father. The ferocity of the assault is conveyed by a detailed sketch of footwear: "The stitching of his father's boot is unraveling. The twine has sprung clear of the leather, and a hard knot in it has caught his eyebrow and opened another cut." Then

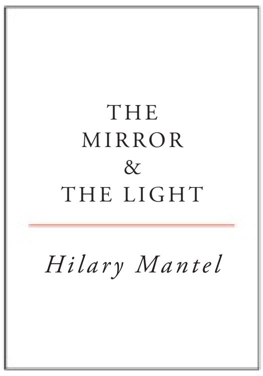
Mantel stopped writing and asked herself, "Where am I?" The answer, of course, is behind Cromwell's eyes, which lie inches from the ground. "At that point," she said, "all the decisions about the book were made, about how to tell the story."

The one-person perspective gives the books their grip, because Cromwell's charisma is never allowed to dissipate. At the same time, Mantel has plenty of room for invention. The Cromwell record has large holes in it, probably because as soon as he got into trouble, his supporters burned or carted away as many papers as they could. Mantel works hard to root her imagination in the material and psychological realities of the period. "I'm very concerned about not pretending they're like us," she told *The Paris Review*. "That's the whole fascination—they're just not. It's the gap that's so interesting."

And yet, Cromwell is like us. At least, it feels that way. His angle of vision on his late-medieval world is oddly familiar, even if his Tudor mores are alien. We can identify. He's an early-modern globalist, *Homo economicus*. He understands that the age of the brave and noble knight is being brought to an end by capitalism. In *Wolf Hall*, the profligate Harry Percy, Earl of Northumberland, informs Cromwell that he, Percy, is immune from financial ruin and loss of title by "ancient rights," and because "bankers have no armies." Cromwell muses,

> How can he explain to him? The world is not run from where he thinks … Not from castle walls, but from countinghouses, not by the call of the bugle but by the click of the abacus, not by the grate and click of the mechanism of the gun but by the scrape of the pen on the page of the promissory note that pays for the gun and the gunsmith and the powder and shot.

The paradox of Mantel's historical trilogy is that Cromwell's anachronisms strengthen his credibility as a character. He has a more highly developed class-consciousness than a man of his era ought to have. But we are willing to suspend disbelief, because his uncanny powers of observation have been so well established that he transcends his world, immersed in it as he is. It would be going too far to call Cromwell a feminist, but he does have a rare ability to see past kings to queens—to their miserable lot and uncredited importance. In *The Mirror & the Light*, a diplomat advises Cromwell not to "pull the women into it." "The women are already in it," he replies. "It's all about women. What else is it about?" In 2013, Mantel published an essay in the *London Review of Books* titled "Royal Bodies," which begins with Kate Middleton (the Duchess of Cambridge), then moves on to the grim existence of princesses and queens, especially in the Tudor era.



HENRY HOLT

"Women, their bodies, their reproductive capacities, their animal nature, are central to the story," Mantel wrote. Like his author, Cromwell understands that the royal enterprise rests on women's backs, their opened legs, their wombs.

Mantel doesn't use Cromwell's insights about women to preach, however. On the contrary: His empathy contributes to his undoing. Over 50 and widowed, Cromwell is lonelier than he realizes, and lack of self-knowledge is perilous for a man in his position. Acting out of pity, or so he tells himself, as well as an oath to her mother and the desire to restrain his "cannibal king," he steps in to help the Lady Mary, Henry's spurned first daughter, who has enraged the king and risks execution. The intensity of his efforts gives rise to rumors that he presumes to woo her, which could arouse the king's wrath against him. But he ignores warnings, and his enemies will make use of a friendship that does have undertones of deeper feeling.

More personally devastating evidence of Cromwell's emotional purblindness comes to light when he arranges a match between his son, Gregory, and Bess, Queen Jane's sister. During negotiations with Bess's brother, Cromwell somehow forgets to say which Cromwell is getting engaged, father or son. Mantel has already suggested that Thomas Cromwell is attracted to Bess, who is witty and perceptive. Eventually the comedy of errors sorts itself out, but at the wedding, Cromwell's mild-mannered son sharply requests that his father stay away from his wife.

It was a mistake, Cromwell protests. Then he promises to avoid Bess. "I am a man of my word," he adds. "So many words," Gregory says.

> So many words and oaths and deeds that when folk read of them in time to come they will hardly believe such a man as Lord Cromwell walked the earth. You do everything. You have everything. You are everything. So I beg you, grant me an inch of your broad earth, Father, and leave my wife to me.

Cromwell is stunned. What should he make of it, "that a son can think evil of his father, as if he is a stranger and you cannot tell what he might do"?

OUR PROBLEM, as readers, is what to make of Cromwell's lapses. Does he know what he's doing? Does he know why? Or does he know and not know, like an analysand in a state of disavowal? A self so divided gives Cromwell a depth at once Shakespearean and modernist. He could be Hamlet, or the title character of one of Freud's case studies. The hero of Wolf Hall and Bring Up the Bodies was a man of action. "I think it was Faulkner who says, Write down what they say and write down what they do," Mantel said in *The Paris Review* interview. "I don't have pages and pages in which I say Cromwell thought. I tell you what he says, I tell you what he does, and you read between the lines."

This is not quite true. Cromwell thinks a great deal in those novels, but mostly about the business at hand. The Cromwell of *The Mirror & the Light*, though, is just as likely to be found ruminating and soliloquizing. His subjects include the past; his revered fellow reformer William Tyndale, the great Bible translator burned as a heretic; himself. Mostly, though, he thinks about the dead, especially those whose deaths he is responsible for. Cromwell dreams of Anne Boleyn as a Christ figure: Her severed head leaves its bloody imprint on the linen it's wrapped in, as if the cloth were the Shroud of Turin. George Boleyn, Anne's late brother, weighs on Cromwell, literally. When Cromwell interrogates a prisoner in the Tower, George's spirit intercepts and grabs onto Cromwell, "head heavy on his shoulder, tears seeping into his linen and leaving a residual salt damp that lasts till he can change his shirt." People in the 16th century believed in ghosts, but they are so real to him, it's as if he has crossed over into their world. I take this to be the figurative expression of a death wish—an appropriate affliction, given the atrocities he has committed.

Mantel changes her prose style to accommodate her more haunted Cromwell. In the earlier novels, the sentences were blunt and propulsive; in this one, she slows them down, unlaces them. The language is more elegiac, almost mystical, though as precise as ever. It now has to trace the wavering edges of a once well-defined self. The dissolution of Cromwell coincides with his unmooring in time. Past and future flow into the present. Cromwell flows with them. One moment he is sucked into his childhood; the next, he is hurled into the sphere of the angels. Indeed, the afterlife occasions some of the loveliest writing in this beautifully written book. Cromwell wonders how he'll recognize his own lost loved ones on the day of his judgment, but just when he needs to, he knows:

> He sees how they are visible, and how they shine. They are distilled into a spark, into an instant. There is air between their ribs, their flesh is honeycombed with light, and the marrow of their bones is molten with God's grace.

As Mantel brings her series to a close, she makes it almost obsessively reflective—a word that is impossible to avoid. Mirrors are not just in the title of this novel; they're all over the place. Cromwell tells the king that he's the "mirror and the light of other kings" (he's lying, of course). Henry owns more than 100 looking glasses, peering into them in an attempt to catch a glimpse of the handsome prince he used to be. Doubling is one of the dominant themes of the novel. Cromwell serves as the king's alter ego, but that's one refraction among many. Cromwell's present begins to echo his past; old figures reappear in new guises. Henry, for instance, becomes a version of Cromwell's abusive father. Oddly but aptly, in this novel, Cromwell's doubles are feline. One is especially disturbing: a starving, caged leopard anonymously deposited in his courtyard. And Mantel has a double too, of course—Cromwell.

Mantel doesn't indulge in overt self-reflexivity, but one scene midway through the novel could be read as catching her in the act of, well, reflecting on the process of creation. The setting is eerie. Dusk has arrived in the countryside, "when earth and sky melt" and "the eyes of cats shine in the dark." Inside, where Cromwell sits, "colour bleeds from sleeve and gown into the darkening air." The imagery turns bookish, then dreamlike: "The page grows dim and letter forms elide and slip into other conformations, so that as the page is turned the old story slides from sight and a strange and slippery confluence of ink begins to flow." Cromwell recommences his incessant dialogue with his selves, the present and the half-remembered, the imagined and the unbounded. His train of thought reminds the reader that Cromwell is also his own author, having fashioned a high minister out of the unlikely material of a ruffian from the streets.

With a novelist's wonderment at a character who defies understanding, Cromwell sees that he can't solve the riddle of himself. "You look back into your past and say, is this story mine?," he thinks, and Mantel could be brooding alongside him:

> Is that flitting figure mine, that shape easing itself through alleys, evader of the curfew, fugitive from the day? Is this my life, or my neighbour's conflated with mine, or a life I have dreamed and prayed for; is this my essence, twisting into a taper's flame, or have I slipped the limits of myself—slipped into eternity, like honey from a spoon? Have I dreamt myself, undone myself, have I forgotten too well?

Yes to all of the above. By the end of these three books, we have been with Cromwell as he lived or revisited most of his life, and we haven't exhausted his mystery. Nor, obviously, has he. It is a testament to Mantel's demiurgic imagination, her ability to multiply ambiguities, that by the time Cromwell achieves something like self-knowledge, there is more to him than it is possible to know. *A*

Judith Shulevitz is the author of The Sabbath World: Glimpses of a Different Order of Time.

ILLUSTRATION BY RODRIGO CORRAL

BOOKS

The World's Favorite Drug

The dark history of how coffee took over

By Michael Pollan

Four hundred years ago, *Coffea arabica*, a tropical shrub bearing glossy green leaves and bright-red berries, was virtually unknown outside of the Arab world and the corner of Ethiopia where it had been discovered in the ninth century—by a goatherd who, legend has it, noticed that his animals would get frisky and stay up all night after nibbling its berries. In the years since people figured out that coffee could affect us in similar ways, the plant has done a great deal for our species, and our species in turn has done a great deal for the plant. We have given it more than 27 million acres of new habitat all around the world, assigned 25 million farming families to its care and feeding, and bid up its price until it became one of the most valuable globally traded crops. Not bad for a shrub that is neither edible nor particularly beautiful or easy to grow.

Coffee owes its global ascendancy to a fortuitous evolutionary accident: The chemical compound that the plant makes to defend itself against insects happens to alter human consciousness in ways we find desirable, making us more energetic and industrious—and notably better workers. That chemical of course is caffeine, which is now the world's most popular psychoactive drug, used daily by 80 percent of humanity. (It is the only such drug we routinely give to our children, in the form of soda.) Along with the tea plant, which produces the same compound in its leaves, coffee has helped create exactly the kind of world that coffee needs to thrive: a world driven by consumer capitalism, ringed by global trade, and dominated by a species that can now barely get out of bed without its help.

The effects of caffeine mesh with the needs of capitalism in myriad ways. Before the arrival of coffee and tea in the West in the 1600s, alcohol—which was more sanitary than water—was the drug that dominated, and fogged, human minds. This might have been acceptable, even welcome, when work meant physical labor performed out of doors (beer breaks were common), but alcohol's effects became a problem when work involved machines or numbers, as more and more of it did.

Enter coffee, a drink that not only was safer than beer and wine (among other things, the water it was made with had to be boiled) but turned out to improve performance and stamina. In 1660, only a few years after coffee became available in England, one observer noted:

> 'Tis found already, that this coffee drink hath caused a greater sobriety among the Nations. Whereas formerly Apprentices and clerks with others used to take their morning's draught of Ale, Beer, or Wine, which, by the dizziness they Cause in the Brain, made many unfit for business, they use now to play the Goodfellows in this wakeful and civil drink.

"This wakeful and civil drink" also freed us from the circadian rhythms of our body, helping to stem the natural tides of exhaustion so that we might work longer and later hours; along with the advent of artificial light, caffeine abetted capitalism's conquest of night. It's probably no coincidence that the minute hand on clocks arrived at roughly the same historical moment as coffee and tea did, when work was moving indoors and being reorganized on the principle of the clock.

THE INTRICATE synergies of coffee and capitalism form the subtext of the historian Augustine Sedgewick's thoroughly engrossing first book, *Coffeeland: One Man's Dark Empire and the Making of Our Favorite Drug*. At the center of Sedgewick's narrative is James Hill, an Englishman born in the slums of industrial Manchester in 1871 who, at 18, sailed for Central America to make his fortune. There, he built a coffee dynasty by refashioning the Salvadoran countryside in the image of a Manchester factory. Hill became the head of one of the "Fourteen Families" who controlled the economy and politics of El Salvador for much of the 20th century; at the time of his death, in 1951, his 18 plantations employed some 5,000 people and produced more than 2,000 tons of export-ready coffee beans from more than 2,500 acres of rich soil on the slopes of the Santa Ana volcano. For many years, much of what Hill (or rather his workers) produced ended up in the familiar red tins of Hills Brothers coffee.

"What does it mean to be connected to faraway people and places through everyday things?" Sedgewick asks in his early pages. *Coffeeland* offers a fascinating meditation on that question, by rendering once-obscure lines of connection starkly visible.

Filling those cans of Hills Brothers coffee involved a few different forms of brutality. Because growing coffee requires a tremendous amount of labor—for planting, pruning, picking, and processing—a planter's success depends on finding enough people in the countryside willing to work. The essential question facing any would-be capitalist, as Sedgewick reminds us, has always and ever been "What makes people work?"

Chattel slavery had provided a good answer for Brazil's coffee farmers, but by the time Hill arrived in El Salvador, in 1889, slave labor was no longer an option. A smart and unsentimental businessman, Hill understood that he needed wage labor, lots of it, and as a son of the Manchester slums, he knew that the best answer to the question of what will make a person work was in fact simple: hunger.

There was only one problem. Rural Salvadorans, most of whom were Indians called "mozos," weren't hungry. Many of them farmed small plots of communally owned land on the volcano, some of the most fertile in the country. This would have to change if El Salvador was to have an export crop. So at the behest of the coffee planters and in the name of "development," the government launched a program of land privatization, forcing the Indians to either move to more marginal lands or find work on the new coffee plantations.

Caffeine is now the world's most popular psychoactive drug, used daily by 80 percent of the world's population.

Actually the choice wasn't initially quite so stark. Even the lands newly planted with coffee still offered plenty of free food for the picking. "Veins of nourishment"—in the form of cashews, guavas, papayas, jocotes, figs, dragon fruits, avocados, mangoes, plantains, tomatoes, and beans—"ran through the coffee monoculture, and wherever there was food, however scant, there was freedom, however fleeting, from work," Sedgewick writes. The planters' solution to this "problem"—the problem of nature's bounty—was to eliminate from the landscape any plant that was not coffee, creating an ever more totalitarian monoculture in which nothing else was permitted to grow. When a chance avocado tree did manage to survive in some overlooked corner, the campesino caught tasting its fruit would be accused of theft and beaten if he was lucky, or shot if he was not. Thus was the concept of private property impressed upon the Indians.

In Sedgewick's words, "What was needed to harness the will of the Salvadoran people to the production of coffee, beyond land privatization, was the plantation's production of hunger itself." James Hill did the math and found that workers showed up most promptly and worked most diligently if he paid them partly in cash—15 cents a day for women and double that for men—and partly in food: breakfast and lunch, which consisted of two tortillas topped with as many beans as could be balanced on them. (The local diet became as monotonous as the landscape.) Hill thus transformed thousands of subsistence farmers and foragers into wage laborers, extracting quantities of surplus value that would be the envy of any Manchester factory owner.

The whole notion of surplus value of course is Karl Marx's and, as Sedgewick points out, emerged from Marx and Friedrich Engels's analysis of industrial capitalism in James Hill's birthplace. Communism was another Manchester export that found its way to Santa Ana, this one arriving during the Great Depression, when coffee prices collapsed and unemployed coffee workers could no longer eat from the land. It turns out that leftists were also able "to transform hunger into power." The climax of Sedgewick's narrative comes in the early 1930s, when thousands of mozos, organized by homegrown Communists who had spent time abroad, rose up against the coffee barons, seizing plantations and occupying town halls.

Revolution was afoot, at least until 1932, when the Salvadoran government, again at the behest of the coffee planters, launched a vicious counterinsurgency. Rounding up anyone who looked like an Indian, soldiers herded them into town squares and then opened fire with machine guns. The government's campaign against the coffee workers came to be known as *La Matanza*—"The Massacre"—and its memory burns bright in the Salvadoran countryside. When

El Salvador erupted for a second time half a century later, the coffee barons were under siege again; James Hill’s grandson, Jaime Hill, was kidnapped by rebels and held for a multimillion-dollar ransom, which the family had no trouble paying.

I’m making Sedgewick’s story sound more schematic than it really is. Though his analysis of coffee’s political economy does owe a debt to Marx, his literary gifts and prodigious research make for a deeply satisfying reading experience studded with narrative surprise. Sedgewick has a knack for the sparkling digression and arresting jump cut, hopping back and forth between El Salvador and the wider world, where coffee was being consumed in ever-increasing quantities. He is especially good on the marketing of coffee to Americans, going back to independence, when the country broke from England’s tea habit and drinking coffee became a patriotic act. He shows how coffee has long been promoted in America less as a tasty beverage or pleasurable experience than as a means to an end: “a form of instant energy—a work drug.”

American scientists studied coffee intensively in the early years of the 20th century, seeking to understand how a beverage that contained virtually no calories could nevertheless supply energy to the human animal, seemingly in violation of the laws of thermodynamics. Coffee had the extraordinary ability to generate surplus value not only in its production but in its consumption as well, as an episode in the history of the coffee break makes clear.

Sedgewick tells the story of a small Denver necktie maker called Los Wigwam Weavers. When the company lost its best young male loom operators to the war effort in the early 1940s, the owner, Phil Greinetz, hired older men to replace them, but they lacked the dexterity needed to weave the intricate patterns in Wigwam’s ties. Next he hired middle-aged women, and while they could produce ties to his standards, they lacked the stamina to work a full shift. When Greinetz called a company-wide meeting to discuss the problem, his employees had a suggestion: Give us a 15-minute break twice a day, with coffee.

Greinetz instituted the coffee breaks and immediately noticed a change in his workers. The women began doing as much work in six and a half hours as the older men had done in eight. Greinetz made the coffee breaks compulsory, but he decided he didn’t need to pay his workers for the half hour they were on break. This led to a suit from the Department of Labor and, eventually, to a 1956 decision by a federal appeals court that enshrined the coffee break in American life. The court ruled that because the coffee breaks “promote more efficiency and result in a greater output,” they benefited the company as much as the workers and should therefore be counted as work time. As for the phrase *coffee break*, it entered the vernacular through a 1952 advertising campaign by the Pan-American Coffee Bureau, a trade group organized by Central American growers. Their slogan: “Give yourself a coffee-break … and get what coffee gives to you.”

COFFEELAND:
ONE MAN’S
DARK EMPIRE
AND THE
MAKING OF
OUR FAVORITE
DRUG

Augustine Sedgewick

PENGUIN PRESS

Near the end of *Coffeeland*, Sedgewick attempts to quantify exactly how much value a pound of coffee gives an employer (or, put another way, extracts from an employee), using Los Wigwam and Hill’s plantation as examples. He estimates that it takes 1.5 hours of Salvadoran labor to produce a pound of coffee. That’s enough to make 40 cups of coffee, or supply two coffee breaks for Wigwam’s 20 employees, which Greinetz calculated yielded the equivalent of 30 additional hours of labor. In other words, the six cents that Hill’s plantation paid for an hour and a half of labor in 1954 was transformed into $22.50 worth of value for Phil Greinetz, an alchemy that reflects both the remarkable properties of caffeine and the brute facts of exploitation.

But the symbiotic relationship that coffee and capitalism have enjoyed for the past several centuries may now be coming to a sad close. *Coffea arabica* is a picky plant, willing to grow only in the narrowest range of conditions: Sunlight, water, drainage, and even altitude all have to be just so. The world has only so many places suitable for coffee production. Climate scientists estimate that at least half of the acreage now producing coffee—and an even greater proportion in Latin America—will be unable to support the plant by 2050, making coffee one of the crops most immediately endangered by climate change. Capitalism may be killing the golden goose.

Yet capitalism is nothing if not resourceful. Employers who now offer coffee breaks might, someday soon, instead hand out tablets of synthetic caffeine, one in the morning, another in the afternoon. This would offer the employer several advantages. Pills are cheaper than coffee, and less messy. And because they take mere seconds to ingest, the coffee break itself would no longer be necessary, giving the company every reason to claw back the 30 precious minutes the courts bequeathed to the American worker 64 years ago. The fate of the coffee workers in El Salvador will likely be far worse, but perhaps the “veins of nourishment”—nature’s edible bounty—will flow again after the monocultures of coffee collapse.

Michael Pollan is the author, most recently, of Caffeine, *an original audiobook, and* How to Change Your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence.

ESSAY

Reiki Can’t Possibly Work. So Why Does It?

The 20th-century Japanese healing therapy is now available in many hospitals. What its ascendance says about shifts in how American patients and doctors think about health care.

By
Jordan Kisner

“When I started it, they all just called it *that crap*. Like, ‘Oh, they’re over there doing *that crap*.’” This nurse, whom I’ll call Jamie, was on the line from a Veterans Affairs medical center in the Northeast. She’d been struggling for a few minutes between the impulse to tout the program she’d piloted, which offers Reiki to vets as part of their medical care, and the impulse to “tread lightly,” because

PHOTOGRAPHS BY CARLOTTA MANAIGO

some of the doctors, nurses, and administrators she works with still think that Reiki is quackery or—you know.

Reiki, a healing practice codified in the early 20th century in Japan, was until recently an unexpected offering for a VA medical center. In Japanese, *rei* roughly translates to "spiritual"; *ki* is commonly translated as "vital energy." A session often looks more like mysticism than medicine: Healers silently place their hands on or over a person's body to evoke a "universal life force." A Reiki treatment can even, practitioners believe, be conducted from miles away.

Reiki's growing popularity in the U.S.—and its acceptance at some of the most respected American hospitals—has placed it at the nexus of large, uneasy shifts in American attitudes toward our own health care. Various non-Western practices have become popular complements to conventional medicine in the past few decades, chief among them yoga, meditation, and acupuncture, all of which have been the subject of rigorous scientific studies that have established and explained their effectiveness. Reiki is the latest entrant into the suite of common additional treatments. Its presence is particularly vexing to naysayers because Reiki delivers demonstrable salutary effects without a proven cause.

Over the past two decades, a number of studies have shown that Reiki treatments help diminish the negative side effects of chemotherapy, improve surgical outcomes, regulate the autonomic nervous system, and dramatically alter people's experience of physical and emotional pain associated with illness. But no conclusive, peer-reviewed study has explained its mechanisms, much less confirmed the existence of a healing energy that passes between bodies on command. Nevertheless, Reiki treatment, training, and education are now available at many esteemed hospitals in the United States, including Memorial Sloan Kettering, Cleveland Clinic, New York Presbyterian, the Yale Cancer Center, the Mayo Clinic, and Brigham and Women's Hospital.

When Jamie introduced Reiki at the VA center 10 years ago, she overrode the objections of some colleagues who thought it was pseudoscience and out of step with the general culture of the VA, where people are inclined to be suspicious of anything that might be described as "woo woo." But she insisted that the VA—which also offers yoga, acupuncture, massage, clinical hypnosis, and tai chi—should explore any supplementary treatment for chronic pain and PTSD that doesn't involve pharmaceuticals, especially narcotics. The veterans started coming, slowly, and the ones who came started coming back. Jamie didn't promise anything other than that it might help them feel calm or help them with pain. The Reiki practitioner she hired was a local woman, somewhat hard-nosed, not inclined to offer anyone crystals. Soon after the program began, Jamie was getting calls from doctors and nurses: "Hey, is the lady here? Someone wants that crap."

The effects were startling, Jamie told me. Veterans who complained that their body had "forgotten how to sleep" came in for Reiki and were asleep on the table within minutes. Others reported that their pain declined from a 4 to a 2, or that they felt more peaceful. One patient, a man with a personality disorder who suffers from cancer and severe pain, tended to stop his normal routine of screaming and yelling at the staff when he came in for his Reiki sessions.

Popular though her program has become, Jamie still hears from colleagues who dismiss the results of Reiki as either incomprehensible or attributable to the placebo effect. As we talked, a little noise of frustration came through the phone line. We take people seriously when they say they're in terrible pain, even though we can't measure that, she said. "Why do we have a problem accepting when somebody says, 'I feel better; that helped'?"

I FIRST LEARNED of Reiki six or seven years ago from a slim memoir by the writer Amy Fusselman. In *8: All True, Unbelievable*, she describes receiving Reiki after years of psychotherapy and visits to doctors failed to ease what ailed her. "Doctors, in my experience, touch you with the desire to examine you, and then they use their brains to figure out what to do," Fusselman writes.

> This is fine, but right then it wasn't what I wanted. What I wanted was to lie there and not use my brain, and believe someone was trying to help me, also not with his or her brain. I understand how this sounds. But you have to remember that I had been trying to use my brain on my problems for twenty years … I was over my brain. I was over everybody's brain.

Reading this, I felt a prick of interest. I, too, was over my brain, which has always been as much the cause of my problems as the solution. What would it be like to admit the possibility of being made better by something that wasn't pharmacological or physiotherapeutic or any of the many polysyllabic options readily available at my doctors' offices? I believe, I suppose, in the spirit; and if I believe that people have a spirit as well as a body, then I might be willing to believe that feeling better or being well isn't only a matter of adjusting the body.

This notion felt mildly outré in 2013, though the idea had long anchored Western medicine, until it parted ways in the 19th century with the holistic approach of Chinese medicine and the Hindu system of Ayurveda. Roberta Bivins points out in her history of alternative medicine that for most of Western history, medical wisdom held that physical health relied on the balance of the four humors (blood, black bile, yellow bile, and phlegm). Those in turn were affected by emotions, weather, the position of the stars, and faith just as much as by diet, age, activity, and environment. Reiki's healing touch also has precedent. In the fourth or fifth century B.C., a Greek physician, possibly Hippocrates, included the following observation in some notes on his profession:

> It is believed by experienced doctors that the heat which oozes out of the hand, on being applied to the sick, is highly salutary … It has often appeared, while I have been soothing my patients, as if there was a singular property in my hands to pull and draw away from the affected parts aches and diverse impurities … Thus it is known to some of the learned that health may be

> implanted in the sick by certain gestures, and by contact, as some diseases may be communicated from one to another.

This passage is now part of what's called the Hippocratic Corpus, a series of texts written by or closely linked to Hippocrates, commonly known as the father of Western medicine. The precepts laid down there form the foundations of the medical philosophies that shape our health care today.

The Hippocratic Corpus also contains one of the earliest articulations of causal determinism, or the idea that all phenomena have a preexisting material cause. In the section titled "On the Sacred Disease," the author insists that the illness we now recognize as epilepsy wasn't a divine affliction at all, as it was believed to be at the time, but a physical ailment like any other, only with as-yet-mysterious causes. "Under a close examination spontaneity disappears," the author writes, "for everything that occurs will be found to do so through something."

The text doesn't explicitly juxtapose these two notions—healing energy and causal determinism—or attempt to resolve any friction that may exist between them. Instead, it suggests that both are true at once: Everything that happens has a natural cause, and some people have a radiating heat in their hands that has curative power.

Even in the early and mid-19th century, physicians were still using humoral theory and competing with homeopaths and botanists for patients; surgeons were a crude last resort. This changed with the ascendancy of germ theory later in the century, when physicians—now focused on professionalizing their field—advanced a new, scientific medicine that they said was beyond dogma. It stood superior to its competitors because it was experimental and rational, requiring no faith—medicine as anti-mysticism.

Since then, the Yale historian of medicine Naomi Rogers told me, what is often called orthodox medicine has staked out "quackery" as its enemy. People continued to go to homeopaths and other extramedical practitioners with their health problems, of course. But after the 19th century, those who put stock in health care that wasn't based in hard science were deemed ignorant. Physicians are still frustrated by such resistance today, Rogers said, but now when patients insist on a course of action other than what the doctor recommends, they're called noncompliant.

The ranks of such patients have steadily grown, Bivins notes. Disillusionment with established medicine has been mounting for decades, fueled by the rising costs and more depersonalized care that have gone hand in hand with stunning technological advances and treatment breakthroughs. Eastern medicine and holistic healing models provided attractive alternatives to what critics in the late 1960s called the "medical industrial complex," and by the new millennium extramedical "wellness" had become big business.

Veterans who complained that their body had "forgotten how to sleep" came in for Reiki and were asleep on the table within minutes.

By the time I signed up last May to learn Reiki at a wellness center in Brooklyn, where I live, a $4.2 trillion global wellness industry had already harnessed the collective American obsession with optimizing the experience of having a body. We were putting adaptogens in our coffee, collagen in our smoothies, jade eggs in our vaginas. We were microdosing, supplementing, biohacking, juicing, cleansing, and generally trying to make ourselves immaculate from the inside out. I also noticed that the yoga studios and "healing spaces" in Brooklyn had begun to incorporate new kinds of offerings: breath work, energy healing, and especially Reiki.

THE POPULARITY of Reiki made sense as part of a backlash to the wellness explosion, which had lately come in for its share of debunking: It was a new form of consumption, critics argued, one that was more bound up with class, gender, anxiety, and late-stage capitalism than with actual health. Reiki takes only an hour or less; it entails no gear, no subscription, no purchases (other than the healer's fee, which is often on a sliding scale according to income), no list of dietary strictures or dubious supplements. The practice could hardly be better pitched for the political and cultural mood: an anticonsumerist, egalitarian rite, available to everyone through mere breath and hands.

Reiki looked like the culmination of a broader trend that Rogers told me had been on the rise over the past 40 years, a development she calls a "black box" attitude toward healing. We submit to a treatment, it works on us mysteriously (as if in a black box), and we feel better. Rogers noted that we are most comfortable relinquishing ourselves to methods we don't understand when the authority figure recommending them seems to care about us. What's more, we have been acclimated to this form of trust by orthodox medicine.

Precision genetic medicine is inscrutable to laypeople, Rogers pointed out. Much of psychiatry resembles the black-box model too. So little is known, even by prescribing psychiatrists, about how and why psychotropic medications work in the brain. Yet the number of Americans who take SSRIs has been steadily rising over the past 30 years, despite a scientific consensus that the "serotonin imbalance" theory of depression is flawed—and despite a well-publicized controversy

about whether the drugs are any more effective than placebos for most patients. Reiki is the perfect enactment of the black box, the healing gesture stripped to its essentials: a virtuous person sitting with you, *intending* your well-being in real time.

I signed up for instruction in two of Reiki's three training levels. The first enables you to do hands-on practice on yourself as well as friends and family (and pets); the second introduces the mental technique for practicing at a distance. (Master training equips you to teach and "initiate" others.) The studio was a warehouse space, with whitewashed brick walls and plywood floors, exposed piping, and brightly colored garlands hanging along the windows. The windowsills were strewn with crystals, shells, and small bottles of oil diffusing into the air.

Once everyone had settled on seat cushions arranged in a large circle on the floor, the two women leading the training introduced the core belief: Reiki energy exists throughout the universe, and when the body is attuned to Reiki, it can act as a sort of lightning rod through which others can receive that energy. They told us to picture Reiki energy entering through the top of our head and exiting through our hands, suffusing us and whomever we touch with the intention to heal. The healer's job is not to control the Reiki or to make decisions about healing. "We're just the channel," one of the masters said. "The healing is a contract between the person who needs to be healed and the higher power." Reiki, they stressed, can never harm anyone. It should also be used only as a complement to conventional medicine, never as a replacement. "We are not doctors," they said several times. "We cannot diagnose anyone with anything."

You can do Reiki on animals, they told us. "Cats are extra attuned to Reiki—cats almost do Reiki on their own. They can heal you." No one questioned this. The same goes for plants, the masters suggested. Get two roses and give Reiki to one; that rose will live longer. A student raised her hand. "But you told us never to give Reiki without consent. How can you get consent from a flower or a tree?"

"You can talk to a tree!" one of the masters said. "You should always ask the tree's permission. Maybe it will tell you to Reiki the next tree." I glanced around the room for raised eyebrows, but there were only more eager questions: Can you Reiki someone who has transitioned to the afterlife? Yes. Can you Reiki your food to make it healing? Yes, and you should.

We were told that once the masters attuned us, our bodies and spirits would vibrate at a higher frequency than before, and we would stay on that higher frequency for the rest of our life. This would constitute a permanent transition in our physical and spiritual states. I was silently indignant: I do not believe in permanently alterable personal vibrations, whatever that means, and anyway I wanted mine left alone.

Touch-based healing simulates the most archetypal care gestures. Several scientists I interviewed mentioned the way their mother would lay a hand on their head when they had a fever.

The masters warned us that once they had opened us to Reiki energy, we should expect to feel a little emotionally drained and perhaps light-headed. They also suggested that many people experience drastic life changes after their first attunement. Major emotional issues come to the surface and require resolution; people suddenly lose their tolerance for alcohol or other drugs; friends, able to sense vibrations "on a different frequency," distance themselves.

And then, the moment for attunement having arrived, we were led in small groups to a narrow, darkened room. Before we passed through the doorway, one of the masters traced Reiki symbols in the air over each of us. "You guys," said the other, making what I hoped was a joke, "we're going to visit some other planets." I can't describe what happened next, because our eyes were closed while the masters performed silent rituals that aren't explained to nonmasters.

A FEW WEEKS LATER, I met with Pamela Miles, an international Reiki master and the leading expert on incorporating Reiki into medical care. Miles has been practicing Reiki since 1986. She has introduced programs into prestigious hospitals and taught Reiki at academic medical centers such as Harvard, Yale, and the National Institutes of Health. Miles has the soft voice, long hair, loose clothing, slow gestures, and easy smile characteristic of someone involved in healing arts. She also has the sharpness one sometimes observes in people who have devoted their life to a discipline—an exactitude and authority. When I told Miles about my training, she looked incredulous. "When they said you were going to have energy shooting through your head from the universe, were you scared?" This afternoon, she was patiently attempting to reeducate me.

Miles falls on the conservative end of Reiki evangelists in that she's careful not to make claims about its mechanisms or efficacy that can't be supported in a scientific context. She does not, for example, subscribe to the belief that Reiki energy is a substance that can be given, received, or measured. No evidence of this has been confirmed, she pointed out. "Reiki is a spiritual practice," she said. "That's what it was to the founder, Mikao Usui. And all spiritual practices have healing by-products because spiritual practice restores balance, bringing us back to our center, and enhancing our awareness of our core selves." When I asked her to explain what that meant practically, she chose her words carefully. "Through an unknown mechanism, when a Reiki practitioner places their hands—mindfully and with detachment—it evokes the healing response from deep within the system," she said. "We really don't know why this happens."

This agnosticism is not shared by all of Reiki's powerful advocates in the United States. The array of psychologists, physicists, and physiologists on the boards of various national Reiki organizations I spoke with—many of whom are eager to develop a standardized method of training and accreditation—champion different forms of energy measurement. In conversations, I heard quantum physics invoked, as well as *biophotons*, *sodium channels*, and "*magnetic stuckness*," and tools like EEGs and gamma-ray detectors. Ann Baldwin, a physiology professor at the University of Arizona and the editor in chief at the Center for Reiki Research, suggested that people who claim to have measured Reiki using energy-sensing machinery are instead measuring something else, such as heat—but she holds out hope that someday we may be able to measure Reiki.

Research this for too long, and you start to sound vaguely stoned. Is Reiki real? Does it matter whether Reiki is real? And whose definition of *real* are we working with: Is it real according to the presiding scientific and medical framework, which tells us that phenomena need to be measurable to be taken seriously, or is it real in the looser, unquantifiable way of spiritual practice?

There are those who will tell you that Reiki is absolutely real because people experience it to be real. It is real because we feel it, and feelings are produced in the body. Skeptics are quick to point to the placebo effect: The body's capacity to heal itself after receiving only the simulated experience of medication or therapy is well documented. But precisely because that capacity is so well documented, reflexive dismissal of the placebo effect as "fake medicine" demands scrutiny—and is now receiving it. In late 2018, *The New York Times Magazine* reported on a group of scientists whose research suggests that responsiveness to placebos, rather than a mere trick of the mind, can be traced to a complex series of measurable physiological reactions in the body; certain genetic makeups in patients even correlate with greater placebo response. Ted Kaptchuk, a Harvard Medical School professor and one of the lead researchers, theorizes that the placebo effect is, in the words of the *Times* article, "a biological response to an act of caring; that somehow the encounter itself calls forth healing and that the more intense and focused it is, the more healing it evokes."

To note that touch-based healing therapies, including Reiki, simulate the most archetypal care gestures is hardly a revelation. Several scientists I interviewed about their work on Reiki mentioned the way their mother would lay a hand on their head when they had a fever or kiss a scraped knee and make the pain go away. It is not hard to imagine that a hospital patient awaiting surgery or chemotherapy might feel relieved, in that hectic and stressful setting, to have someone place a hand gently and unhurriedly where the hurt or fear is with the intention of alleviating any suffering. That this increased calm might translate into lowered blood pressure or abated pain, anxiety, or bleeding—as has been observed in hospital patients who undergo Reiki—seems logical, too.

The ailments that Reiki seems to treat most effectively are those that orthodox medicine struggles to manage: pain, anxiety, chronic disease, and the fear or discomfort of facing not only the suffering of illness but also the suffering of treatment. "What conventional medicine is excellent at is acute care. We can fix broken bones, we can unclog arteries, we can help somebody survive a significant trauma, and there are medicines for all sorts of symptoms," Yufang Lin, an integrative-medicine specialist at Cleveland Clinic, told me. But medicine, she said, is less successful at recognizing the way that emotion, trauma, and subjective experience can drive physical health—and the way that they can affect recovery from acute medical care.

Lifesaving surgery is miraculous but requires drugging the body, cutting it open, altering it, stitching it back together, and then asking it to heal. Chemotherapy causes the body to fall to pieces; it can damage the brain, wreck internal organs, and destroy nerve endings, sometimes permanently. Medicine is necessary, but it can also be brutal. Lin, like several of the physicians I spoke with, emphasized that healing is something that happens within the body, enabled rather than imposed by medicine. When we are traumatized, survival is the priority and our healing mechanisms are on lockdown, Miles observed. "We have to pull out of that stress state and get into a parasympathetic-dominant state before the body is able to self-heal and actively partner with conventional medicine."

Many physicians and scientists still believe that allowing Reiki to share space with medicine is at best silly and at worst dangerous. In 2014, David Gorski, a surgical oncologist, and Steven Novella, a neurologist, co-wrote an article calling for an end to clinical trials of Reiki and other forms of energy medicine. To assess approaches rooted in "prescientific thinking" with tools designed to evaluate "well-supported science- and evidence-based" treatments, they argued, degrades "the scientific basis of medicine." It saps resources from research into valid therapies, and misleads patients.

Other doctors and researchers have accepted the line of argument that Miles and many other Reiki advocates have put forward: The practice has no known negative side effects, and has been shown by various studies that pass evidentiary muster to help patients in a variety of ways when used as a complementary practice. Unlike the many FDA-approved medications that barely beat a placebo in studies and carry negative side effects, Reiki is cheap and safe to implement. Does its exact mechanism need to be understood for it to be accepted as a useful therapeutic option? For decades, experts weren't precisely sure how acetaminophen (Tylenol) eases pain, but Americans still took billions of doses every year. Many medical treatments are adopted for their efficacy long before their mechanisms are known or understood. Why should this be different?

IN THE REIKI TRAINING I attended, the moment came when we began to practice on one another for the first time. Taking turns, students would hop up on the table, and four or five others would cluster around. The masters told us to breathe deeply, gather our intention, and begin. After one or two minutes of uncertain silence, a woman a few tables away from me spoke up. "What are we supposed to be thinking?"

I was relieved someone had asked. My entire reason for being in the class was to learn what a person is *doing* when practicing Reiki. But our teachers hadn't said what, precisely, was supposed to transform the act of hovering our hands over one another into Reiki.

"You don't have to be thinking anything," one master said. "You are just there to love them."

I thought to myself, more or less simultaneously, *Oh brother* and *Of course*. That we were simply there to be loving one another sounded like the worst stereotype of pseudo-spiritual babble. At the same time, this recalled the most cutting-edge, Harvard-stamped science I'd read in my research: Ted Kaptchuk's finding that the placebo effect is a real, measurable, biological healing response to "an act of caring." The question of what Reiki *is* introduces—or highlights—an elision between the spiritual and the scientific that has, as yet, no resolution.

In 2002, two professors at the University of Texas Health Science Center, in Houston, gathered a group of people in order to document and study the qualitative experience of receiving a Reiki treatment. The study participants didn't have any shared belief in Reiki or its possible results, or any particular need for healing; they simply received a session and then described what they felt.

After treatment, the subjects spoke more slowly. They described their experience in the language of paradoxes. "In the normal state of awareness, especially in Western traditions, people tend to see disparate phenomena as distinct, discrete, and contradictory," the authors of the study later wrote. "Most people resolve that disparity by denying or suppressing the existence of one of the poles." But through Reiki, the subjects entered a liminal state, in which their thoughts seemed both like their own and not; time moved both very fast and very slowly; their bodies seemed no longer separate from the practitioner's body, though they also remembered that their bodies were their own.

That we were simply there to be loving one another sounded like the worst stereotype of pseudo-spiritual babble.

At the end of my training, I did not feel invested with any new power, but I did feel raw and buzzy. Though plenty of things in my training had seemed flatly impossible to believe, I had spent lots of time on a table as a practice body for my classmates. I'd felt more relaxed and calm afterward, but did I feel healed? Healed of what? Healed *by* what? I'd spent even more time breathing deeply and placing hands on a stranger's solar plexus, or the crown of her head, or the arch of her foot. In that time, I had sometimes felt nothing other than the comfort of human touch. Other times I had felt odd things: the sensation of magnetic attraction or repulsion between my hand and a rib cage, a burning heat that came and went suddenly. When I gently cupped my hands around a woman's jaw, the tips of my right fingers buzzed as if from an electrical current, tickling me.

I had spent two days in and out of the liminal state the UT study described, and I felt more sensitive to the world. I had also spent some meaningful time being touched kindly by strangers and touching them kindly, and thinking about what it might be like to feel well, to stop reporting to the doctor every year the same minor ailments: a tweaked shoulder, a tight jaw, general nervousness, scattered attention, my idiosyncratic imbalances and deficiencies. I didn't personally "believe" in Reiki as a universal energy channeled through the hands, available to cats and plants and the dead. But I believed Yufang Lin and other physicians who attest that the body—helped by medicine and nutrition and all sorts of things—does the work of healing, and I believed Miles when she said that Reiki practice, through some unknown mechanism, may help the body to do it.

Every once in a while, friends will hear that I'm Reiki-trained and ask whether I'll "do it" on them. They usually ask whether it's real, and I say I don't know, but that at a minimum, I'll have spent some time quietly and gently focusing on the idea of them being well. They usually answer that this sounds good.

Jordan Kisner is the author of Thin Places: Essays From In Between.

The Atlantic (ISSN 1072-7825), recognized as the same publication under *The Atlantic Monthly* or *Atlantic Monthly* (The), is published monthly except for combined issues in January/February and July/August by The Atlantic Monthly Group, 600 New Hampshire Ave. NW, Washington, DC 20037 (202-266-6000). Periodicals postage paid at Washington, D.C., Toronto, Ont., and additional mailing offices. Postmaster: send all UAA to CFS (see DMM 707.4.12.5); NONPOSTAL AND MILITARY FACILITIES: send address corrections to Atlantic Address Change, P.O. Box 37564, Boone, IA 50037-0564. Printed in U.S.A. Subscription queries: Atlantic Customer Care, P.O. Box 37564, Boone, IA 50037-0564 (or call 800-234-2411). Privacy: We occasionally get reports of unauthorized third parties posing as resellers. If you receive a suspicious notification, please let us know at fraudalert@theatlantic.com. Advertising (646-539-6700) and Circulation (800-234-2411): 600 New Hampshire Ave. NW, Washington, DC 20037. Subscriptions: one year $59.99 in the U.S. and poss., add $10.00 in Canada, includes GST (123209926); add $20.00 elsewhere. Canada Post Publications Mail Agreement 41385014. Canada return address: *The Atlantic*, P.O. Box 1051, Fort Erie, ON L2A 6C7. Back issues: send $15.00 per copy to *The Atlantic*, Back Issues, 1900 Industrial Park Dr., Federalsburg, MD 21632 (or call 410-754-8219). Vol. 325, No. 3, April 2020. Copyright © 2020, by The Atlantic Monthly Group. All rights reserved.

Darwin Panama

A warm weather hat with Australian styling, handwoven in Ecuador from toquilla fiber. Water resistant coating, braided kangaroo leather band. Reinforced 4½" crown, 3" brim. Finished in USA.

S (6¾-6⅞) M (7-7⅛) L (7¼-7⅜)
XL (7½-7⅝) XXL (7¾)

#1649 Darwin Panama__$130

Panama Fedora

Classic sun protection handwoven in Ecuador from toquilla fiber. Water resistant coating, grosgrain ribbon band. Reinforced 4½" crown, 2½" brim. Finished in USA.

S (6¾-6⅞) M (7-7⅛) L (7¼-7⅜)
XL (7½-7⅝) XXL (7¾)

#1648 Panama Fedora__$105

Add $9 handling per order.
Satisfaction guaranteed.

Shop on davidmorgan.com or request our print catalog

#KB-336-SSC
#1746
#1622

Akubra® Hats from Australia
Panama Hats from Ecuador
Northwest Jewelry Designs

David Morgan
800-324-4934 davidmorgan.com
11812 N Creek Pkwy N, Ste 103•Bothell, WA 98011

Light & Easy Kayak

Light:
Weighs 35 lbs.

Easy:
to Paddle
to Carry
to Inflate
to Check As Luggage

Watch the Sea Eagle®
FastTrack Kayaks™
in action!
Scan Qr Code to see the video
http://sea.gl/FTVIDEO

The ***Sea Eagle FastTrack™ 385ft*** is the Light & Easy Kayak!

Outside patented high pressure inflatable keel and the inside high pressure inflatable floor makes this kayak paddle faster and track better than other inflatable kayaks. Its light weight (just 35 lbs.) makes it incredibly easy to carry. Three air chamber construction makes it safe & stable.

What makes The Sea Eagle® FastTrack™ Such A Great Kayak!

- 7 minute setup / Packs in car trunk easily!
- Patented outside inflatable keel tracks straighter
- Lightweight - just 35 lbs. - goes anywhere!
- FastTrack™ paddles quickly, safely and precisely in any direction.
- Multiple air compartments / Incredibly stable!

1-800-944-7496 for a FREE catalog
SeaEagle.com for more info

SEAEAGLE.com®

19 N. Columbia St., **AT040B**
Port Jefferson, NY 11777

World's Finest Eye Cream

a "selections" product in Oprah magazine

20% Off
AIRBRUSH
eye cream

AIRBRUSH

Eye Refining Treatment

Airbrush Eye Cream reduces puffiness right away, especially when cold. Promotes new collagen which reduces fine lines and wrinkles. Reduces dark circles, is soothing, hydrating and promotes a youthful healthy glow!

Hypo-allergenic and natural containing emu oil serum, green tea extract, aloe vera, collagen and elastin.

Use am & pm for best results and the jar will last about 3 months!

Reg $68
Now only $54.40

Compare to:
La Mer Eye Balm @ $200
Shiseido Solution LX @ $130
La Prairie Swiss @ $240

Use 20% discount code: **ATX2** at
www.dremu.com
or call 800-542-0026 and get free shipping.
Open 7 Days

Todays meeting
1: Review revenue trends

VisuGlass®

PREMIUM MAGNETIC GLASS WHITEBOARDS

VisuGlass® whiteboards offer a ***vivid true-white writing surface*** that makes writing pop off the board. No green tint or unsightly hardware in sight–***it's just you and your brilliant white glass board.***

Magnatag® Show What's Happening

800-624-4154 | magnatag.com/**VIG**

USA ENGINEERED & BUILT*

World's Most Powerful Leaf Vacuum!

Perfect for SPRING CLEAN-UP!

Tow-Behind

- Rated #1 in vacuum power!
- Huge capacity.
- Stores flat in minutes.
- Easy, one-handed dumping.

Walk-Behind

- Easy on/off collector bags hold up to 8 bushels!
- Perfect for landscaped areas and smaller properties.
- Self-propelled model available.

1AD55X © 2020

FREE SHIPPING | **6 MONTH TRIAL**

SOME LIMITATIONS APPLY

Go Online or Call for FREE Info Kit!

DRleafmachines.com

TOLL FREE **888-213-0237**

*Assembled in the USA using domestic and foreign parts.

PROFESSIONAL POWER DR DONE RIGHT

PULSE™ 62V BATTERY-POWERED TOOLS

POWERED BY LIPRO™ 62 VOLT INTERCHANGEABLE LITHIUM-ION BATTERIES

OREGON
LIPRO
5.0 AH
DR

1AD5AX © 2020

CHECK OUT OUR GROWING LINE! Lawn Mowers • Trimmer Mower • Snow Thrower • Blower • String Trimmer • Chainsaw • Pole Saw • Hedge Trimmer

FREE SHIPPING | **6 MONTH TRIAL** | **EASY FINANCING**

SOME LIMITATIONS APPLY. GO ONLINE OR CALL FOR DETAILS.

Go Online or Call for FREE Catalog & Special Offer!

DRbatterytools.com

TOLL FREE **888-213-0237**

PROFESSIONAL POWER DR DONE RIGHT

ATHENA PHEROM♡NES™ INCREASE AFFECTION

Created by Winnifred Cutler, Ph.D. in biology from U. of Penn, post-doc Stanford. Co-discovered human pheromones in 1986
Author of 8 books on wellness

SAVE $100 with our 6-Pak special offer

PROVEN EFFECTIVE IN 3 DOUBLE BLIND STUDIES IN PEER REVIEW JOURNALS

Unscented
Fragrance Additives

INCREASES YOUR ATTRACTIVENESS

Athena 10X™ For Men $99.50
10:13™ For Women $98.50
Cosmetics Free U.S. Shipping

♥ **Dale (TX)** 11 orders "**I have been using 10X since about 2013. I think it is fantastic!** I have noticed a general receptivity and obviously an attraction. After that, it is virtually up to me."

♥ **Sara, PhD (CO)** "I find 10:13 has major positive effects on my work with peple. **My interviews, or important meetings... It's like the Red Sea parts.**"

Not in stores 610-827-2200

Athenainstitute.com

Athena Institute, 1211 Braefield Rd., Chester Spgs, PA 19425 ATM

Est. 1915 THOMPSON CIGAR

POWERHOUSE 12 CIGAR COMBO

$19.95*

Compare similar at ~~$119.85~~

12 Premium Hand-Rolled Dominican Cigars

Ultra Reliable Butane Torch Lighter

A Guillotine Cigar Cutter

BONUS Cherrywood-finish Humidor (Holds 20 Churchills)

Order Now! Limited Supply

Call 1-800-237-2559

or visit www.thompsoncigar.com/TCSA277
Promo Code **TCSA277**

OFFER VALID UNTIL 5/15/2020 – *Add $5.99 for Shipping – (TCASST51-SP). Purchase may be subject to state, local or excise taxes where applicable. First-time purchasers only. One per customer. No sales to anyone under the age of 21. We do not ship to Utah or South Dakota. Only good in the USA.

©2020 Thompson Cigar Co.

Yard Cleanup is EASY with a DR® CHIPPER SHREDDER!

CHIP...
USA ENGINEERED & BUILT*
Three models to choose from!
...& SHRED!
Towable and PTO models too!

1AD53X © 2020

CHIP branches up to 5" in diameter.

SHRED yard & garden waste up to 1.5" thick.

POWERFUL ENGINES spin massive flywheels and shredding hammers to reduce everything FAST.

FREE SHIPPING **6 MONTH TRIAL**

SOME LIMITATIONS APPLY

Go Online or Call for FREE Info Kit!

DRchipper.com

TOLL FREE **888-213-0237**

*Assembled in the USA using domestic and foreign parts.

PROFESSIONAL POWER DR DONE RIGHT

PROMOTION

Play the Atlantic Crossword

Our mini puzzle gets bigger and more challenging each weekday. Find it at:

theatlantic.com/crossword

The Atlantic

Unlock your unlimited access to *The Atlantic*'s journalism.

TheAtlantic.com/register

MODERN MEMOIRS, INC.

As-told-to memoirs &
self-publishing services
~since 1994

413-253-2353

$3,000 LITERARY AWARDS

SEND FOR OUR FREE BROCHURE

Eaton Literary Agency
P. O. Box 49795
Sarasota, FL 34230
www.eatonliterary.com
941-366-6589

Magnatag®
Show What's Happening
CAMPAIGN FORECAST/PROJECTIONS

YOUR WALL
YOUR IDEAS
YOUR STORIES

WhiteWalls®

Magnetic Dry-Erase
Whiteboard Panels

WhiteWalls.com | 800-624-4154 | sales@magnatag.com

The most comfortable wallet you'll ever own.

Back pocket wallets are poorly designed - they're bulky, uncomfortable and easy to have stolen. So at our little leather shop in Maine, we reimagined the wallet and what it could be.

We started with a new design that was slim, secure, and shaped for your front pocket. We put the finest American leathers in the hands of our craftsmen and women. And we ended up with a wallet you'll want to carry for a lifetime. Not everyone cares about well-made leather goods. But if you're the type of person who does, we're glad you found us.

Rogue Industries

rogue-industries.com | 800-786-1768

Get this with your money at a typical auto parts store.

With money left to buy lunch!

Or ALL this at www.RockAuto.com!

ROCKAUTO.COM
ALL THE PARTS YOUR CAR WILL EVER NEED

- ✓ Reliably Low Prices
- ✓ Easy To Use Website
- ✓ Huge Selection
- ✓ Fast Shipping

ODE

to

FALLIBILITY

By James Parker

December 2019, Norwich, England.

Floodlit winter brilliance. Scintillating figures with dragon breath, some in yellow, some in blue. Norwich City is playing Tottenham Hotspur in the Premier League. Teemu Pukki, Norwich's fiercely scurrying Finnish striker, receives—or magnetically attracts—a long, searching ball from Mario Vrančić onto his chest; angles it into his own path; and then, slicing between two Tottenham defenders, zeroes it past the scrambling goalkeeper and into the back of the net. Beautiful. The goal-scorer wheels away in triumph, the home crowd goes nuts, shazam—a lightning ripple of sport-induced gladness zips around the world.

But wait, hang on … Oh, Christ. VAR. The Video Assistant Referee system, reviled innovation of the current Premier League season, is "checking" the goal. One hundred fifty miles away, in London, footage is being reviewed. We're in limbo. A vacuum occupies the broadcast booth; the crowd shifts, grumbles, in a haze of spoiling endorphins. Then, on the big screen, there it is: GOAL DISALLOWED. A haggard roar goes up. It has been determined that Pukki, at the moment that Vrančić sent the ball his way, was microscopically—with perhaps the outer edge of his shoulder—ahead of the deepest-lying Spurs defender. In other words, he was offside. The referee didn't see it; the linesmen didn't see it; the crowd didn't see it; the Tottenham players didn't see it. Nobody saw it. But the faceless invigilators of VAR, in their multiscreen hive—they saw it. Sorry, Pukki. Sorry, universe. Wind back the spool of joy. No goal.

Watching VAR happen, watching this huge, technocratic toad lower its clumsy haunches onto the beautiful and mobile game of soccer, I feel ill. Fans of the NBA, the NFL, Major League Baseball, and the other leagues using this kind of surveillance will understand. I feel, as William James put it, menaced and negated in the springs of my innermost life.

I think about all the layers of finicking supervision and overweening scrutiny to which we subject ourselves: the preposterous standards, the insensate judgments, the malign fantasy of perfectibility that has overtaken even our moments of play. And it is a fantasy. Mike Riley, the chief referee of the Premier League, recently identified four instances in which valid decisions by on-field officials had been overruled by video review.

As for the Pukki decision, it might have been, in the narrowest and most metrical sense, right. But everything else about it is wrong: the second-guessing, the flow-reversal, the sheer bummer of the process. The VAR world—with its obscure vectors and subatomic infringements—is just not what soccer *is*. Not what reality is.

So here's to being fallible, to honoring the possibilities of the ever-running moment by accepting that some of those possibilities are wrong. We live our lives in negotiation with entropy, do we not? A tolerance for error is a must. Not for injustice, not for corruption, but for the honest mistake, made in real time. Solomon himself blew a call now and again. So what? It's a universal condition. It's *the* universal condition. You don't hit Pause and summon the immaculate arbitrators. You don't wait for the screen to tell you what happened. You don't stop the game until the game is over.

James Parker is a staff writer at The Atlantic.

Which options strategy could you use to generate income?

- a. Covered Call
- b. Credit Spread
- c. Iron Condor
- d. All of the Above

If you know the answer, we like the way you think. At TD Ameritrade, our award-winning experience is designed to take your options trading to the next level. Get access to our intuitive trading platform, thinkorswim®, commission-free online trading,* specialized options education, and a trade desk team ready to gut check your toughest options strategies.

Start options trading at **tdameritrade.com/knowyouroptions**

TD Ameritrade® | Where Smart Investors Get Smarter℠

***Applies to U.S. exchange-listed stocks, ETFs, and options. A $0.65 per contract fee applies for options trades.**

Answer: d. All of the Above. Options trading is subject to significant risks and is not suitable for all investors. Multi-leg strategies entail additional costs. Options trading privileges subject to TD Ameritrade review and approval. Before trading options, carefully read Characteristics and Risks of Standardized Options. Contact TD Ameritrade at 800-669-3900 for a copy. This is not an offer or solicitation in any jurisdiction where we are not authorized to do business. TD Ameritrade, Inc., member FINRA/SIPC. © 2019 TD Ameritrade.